The Game of Life & How to Play it

Florence Scovel Shinn

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AND HOW TO PLAY IT

By

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THE GAME

Most people consider life a battle, but it is not a battle, it is a game.

It is a game, however, which cannot be played successfully without the knowledge of spiritual law, and the Old and the New Testaments give the rules of the game with wonderful clearness. Jesus Christ taught that it was a great game of *Giving and Receiving*.

"Whatsoever a man soweth that shall he also reap." This means that whatever man sends out in word or deed, will return to him; what he gives, he will receive.

If he gives hate, he will receive hate; if he gives love, he will receive love; if he gives criticism, he will receive criticism; if he lies he will be lied to; if he cheats he will be cheated. We are taught also, that the imaging faculty plays a leading part in the game of life.

"Keep thy heart (or imagination) with all diligence, for out of it are the issues of life." (Prov. 4:23.)

This means that what man images, sooner or later externalizes in his affairs. I know of a man

who feared a certain disease. It was a very rare disease and difficult to get, but he pictured it continually and read about it until it manifested in his body, and he died, the victim of distorted imagiation.

So we see, to play successfully the game of life, we must train the imaging faculty. A person with an imaging faculty trained to image only good, brings into his life "every righteous desire of his heart"—health, wealth, love, friends, perfect self-expression, his highest ideals.

The imagination has been called, *"The Scissors of The Mind,"* and it is ever cutting, cutting, day by day, the pictures man sees there, and sooner or later he meets his own creations in his outer world. To train the imagination successfully, man must understand the workings of his mind. The Greeks said: "Know Thyself."

There are three departments of the mind, the *subconscious, conscious and superconscious.* The subconscious, is simply power, without direction. It is like steam or electricity, and it does what it is directed to do; it has no power of induction.

Whatever man feels deeply or images clearly, is impressed upon the subconscious mind, and carried out in minutest detail.

For example: a woman I know, when a child, always "made believe" she was a widow. She "dressed up" in black clothes and wore a long black veil, and people thought she was very clever and amusing. She grew up and married a man with whom she was deeply in love. In a short time he died and she wore black and a sweeping veil for

many years. The picture of herself as a widow was impressed upon the subconscious mind, and in due time worked itself out, regardless of the havoc created.

The conscious mind has been called mortal or carnal mind.

It is the human mind and sees life as it *appears to be.* It sees death, disaster, sickness, poverty and limitation of every kind, and it impresses the subconscious.

The *superconscious* mind is the God Mind within each man, and is the realm of perfect ideas.

In it, is the *"perfect pattern"* spoken of by Plato, *The Divine Design;* for there is a *Divine Design* for each person.

"There is a place that you are to fill and no one else can fill, something you are to do, which no one else can do."

There is a perfect picture of this in the *superconscious mind.* It usually flashes across the conscious as an unattainable ideal—"something too good to be true."

In reality it is man's true destiny (or destination) flashed to him from the Infinite Intelligence which is *within himself.*

Many people, however, are in ignorance of their true destinies and are striving for things and situations which do not belong to them, and would only bring failure and dissatisfaction if attained.

For example: A woman came to me and asked me to "speak the word" that she would marry a certain man with whom she was very much in love. (She called him A. B.)

I replied that this would be a violation of spiritual law, but that I would speak the word for the right man, the "divine selection," the man who belonged to her by divine right.

I added, "If A. B. is the right man you can't lose him, and if he isn't, you will receive his equivalent." She saw A. B. frequently but no headway was made in their friendship. One evening she called, and said, "Do you know, for the last week, A. B. hasn't seemed so wonderful to me." I replied, "Maybe he is not the divine selection—another man may be the right one." Soon after that, she met another man who fell in love with her at once, and who said she was his ideal. In fact, he said all the things that she had always wished A. B. would say to her.

She remarked, "It was quite uncanny."

She soon returned his love, and lost all interest in A. B.

This shows the law of substitution. A right idea was substituted for a wrong one, therefore there was no loss or sacrifice involved.

Jesus Christ said, "Seek ye first the Kingdom of God and his righteousness; and all these things shall be added unto you," and he said the Kingdom *was within man.*

The Kingdom is the realm of *right ideas,* or the divine pattern.

Jesus Christ taught that man's words played a leading part in the game of life. "By your words ye are justified and by your words ye are condemned."

Many people have brought disaster into their lives through idle words.

For example: A woman once asked me why her life was now one of poverty of limitation. Formerly she had a home, was surrounded by beautiful things and had plenty of money. We found she had often tired of the management of her home, and had said repeatedly, "I'm sick and tired of things—I wish I lived in a trunk," and she added: "Today I am living in that trunk." She had spoken herself into a trunk. The subconscious mind has no sense of humor and people often joke themselves into unhappy experiences.

For example: A woman who had a great deal of money, joked continually about "getting ready for the poorhouse."

In a few years she was almost destitute, having impressed the subconscious mind with a picture of lack and limitation.

Fortunately the law works both ways, and a situation of lack may be changed to one of plenty.

For example: A woman came to me one hot summer's day for a "treatment" for prosperity. She was worn out, dejected and discouraged. She said she possessed just eight dollars in the world. I said, "Good, we'll bless the eight dollars and multiply them as Jesus Christ multiplied the loaves and the fishes," for He taught that *every man* had the power to bless and to multiply, to heal and to prosper.

She said, "What shall I do next?"

I replied, "Follow intuition. Have you a 'hunch' to do anything, or to go anywhere?" Intuition means, intuition, or to be taught from within. It is man's unerring guide, and I will deal more fully with its laws in a following chapter.

The woman replied: "I don't know—I seem to have a 'hunch' to go home; I've just enough money for carfare." Her home was in a distant city and was one of lack and limitation, and the reasoning mind (or intellect) would have said: "Stay in New York and get work and make some money." I replied, "Then go home—never violate a hunch." I spoke the following words for her: *"Infinite Spirit open the way for great abundance for ——. She is an irresistible magnet for all that belongs to her by divine right."* I told her to repeat it continually also. She left for home immediately. In calling on a woman one day, she linked up with an old friend of her family.

Through this friend, she received thousands of dollars in a most miraculous way. She has said to me often, "Tell people about the woman who came to you with eight dollars and a hunch."

There is always *plenty on man's pathway;* but it can only be *brought into manifestation* through desire, faith or the spoken word. Jesus Christ brought out clearly that man must make the *first move.*

"*Ask,* and it shall be given you, seek, and ye shall find, knock, and it shall be opened unto you. (Mat. 7:7.)

In the Scriptures we read:

"Concerning the works of my hands, command ye me."

Infinite Intelligence, God, is ever ready to carry out man's smallest or greatest demands.

Every desire, uttered or unexpressed, is a demand. We are often startled by having a wish suddenly fulfilled.

For example: One Easter, having seen many beautiful rose-trees in the florists' windows, I wished I would receive one, and for an instant saw it mentally being carried in the door.

Easter came, and with it a beautiful rose-tree. I thanked my friend the following day, and told her it was just what I had wanted.

She replied, "I didn't send you a rose-tree, I sent you lilies!"

The man had mixed the order, and sent me a rose-tree simply because I had started the law in action, and *I had to have a rose-tree.*

Nothing stands between man and his highest ideals and every desire of his heart, but doubt and fear. When man can "wish without worrying," every desire will be instantly fulfilled.

I will explain more fully in a following chapter the scientific reason for this and how fear must be erased from the consciousness. It is man's only enemy—fear of lack, fear of failure, fear of sickness, fear of loss and a feeling of *insecurity on some plane.* Jesus Christ said: "Why are ye fearful, oh ye of little faith?" (Mat. 8:26.) So we can see we must substitute faith for fear, for fear is only inverted faith; it is faith in evil instead of good.

The object of the game of life is to see clearly one's good and to obliterate all mental pictures of evil. This must be done by impressing the subconscious mind with a realization of good. A very brilliant man, who has attained great success, told me he had suddenly erased all fear from his consciousness by reading a sign which hung in a room. He saw printed, in large letters this statement—"*Why worry, it will probably never happen.*" These

words were stamped indelibly upon his subconscious mind, and he has now a firm conviction that only good can come into his life, therefore only *good can manifest.*

In the following chapter I will deal with the different methods of impressing the subconscious mind. It is man's faithful servant but one must be careful to give it the right orders. Man has ever a silent listener at his side—his subconscious mind.

Every thought, every word is impressed upon it and carried out in amazing detail. It is like a singer making a record on the sensitive disc of the phonographic plate. Every note and tone of the singer's voice is registered. If he coughs or hesitates, it is registered also. So let us break all the old bad records in the subconscious mind, the records of our lives which we do not wish to keep, and make new and beautiful ones.

Speak these words aloud, with power and conviction: "I now smash and demolish (by my spoken word) every untrue record in my subconscious mind. They shall return to the dust-heap of their native nothingness, for they came from my own vain imaginings. I now make my perfect records through the Christ within—The records of *Health, Wealth, Love and perfect self-Expression.*" This is the square of life, *The Game completed.*

In the following chapters, I will show how man can *change* his *conditions by changing his words.* Any man who does not know the power of the word, is behind the times.

"Death and Life are in the power of the tongue."
(Prov. 18:21.)

THE LAW OF PROSPERITY

"Yea, the Almighty shall be thy defense
and thou shalt have plenty of silver."

One of the greatest messages given to the race through the scriptures is that God is man's supply and that man can release, *through his spoken word,* all that belongs to him by divine right. He must, however, have *perfect faith in his spoken word.*

Isaiah said, "My word shall not return unto me void, but shall accomplish that where unto it is sent." We know now, that words and thoughts are a tremendous vibratory force, ever moulding man's body and affairs.

A woman came to me in great distress and said she was to be sued on the fifteenth of the month for three thousand dollars. She knew no way of getting the money and was in despair.

I told her God was her supply, and *that there is a supply for every demand.*

So I spoke the word! I gave thanks that the woman would receive three thousand dollars at the right time in the right way. I told her she must have perfect faith, and act her *perfect faith.* The fifteenth came but no money had materialized.

She called me on the 'phone and asked what she was to do.

I replied, "It is Saturday, so they won't sue you today. Your part is to act rich, thereby showing perfect faith that you will receive it by Monday." She asked me to lunch with her to keep up her courage. When I joined her at a restaurant, I said, "This is no time to economize. Order an expensive luncheon, act as if you have already received the three thousand dollars."

"All things whatsoever ye ask in prayer, *believing,* ye shall receive." "You must act as if you *had already received.*" The next morning she called me on the 'phone and asked me to stay with her during the day. I said "No, you are divinely protected and God is never too late."

In the evening she 'phoned again, greatly excited and said, "My dear, a miracle has happened! I was sitting in my room this morning, when the doorbell rang. I said to the maid: 'Don't let anyone in.' The maid however, looked out the window and said, 'It's your cousin with the long white beard.'

So I said, 'Call him back. I would like to see him.' He was just turning the corner, when he heard the maid's voice, and *he came back.*

He talked for about an hour, and just as he was leaving he said, 'Oh, by the way, how are finances?'

I told him I needed the money, and he said, 'Why, my dear, I will give you three thousand dollars the first of the month.'

I didn't like to tell him I was going to be sued. What shall I do? I won't *receive it till* the first of the month, and I must have it tomorrow." I said, "I'll keep on 'treating.'"

I said, "Spirit is never too late. I give thanks she has received the money on the invisible plane and that it manifests on time." The next morning her cousin called her up and said, "Come to my office this morning and I will give you the money." That afternoon, she had three thousand dollars to her credit in the bank, and wrote checks as rapidly as her excitement would permit.

If one asks for success and prepares for failure, he will get the situation he has prepared for. For example: A man came to me asking me to speak the word that a certain debt would be wiped out.

I found he spent his time planning what he would say to the man when he did not pay his bill, thereby neutralizing my words. He should have seen himself paying the debt.

We have a wonderful illustration of this in the bible, relating to the three kings who were in the desert, without water for their men and horses. They consulted the prophet Elisha, who gave them this astonishing message:

"Thus saith the Lord—Ye shall not see wind, neither shall ye see rain, yet make this valley full of ditches."

Man must prepare for the thing he has asked for, *when there isn't the slightest sign of it in sight.*

For example: A woman found it necessary to look for an apartment during the year when there was a great shortage of apartments in New York. It was considered almost an impossibility, and her friends were sorry for her and said, "Isn't it too bad, you'll have to store your furniture and live in a hotel." She replied, *"You needn't feel sorry for me, I'm a superman, and I'll get an apartment."*

She spoke the words: *"Infinite Spirit, open the way for the right apartment."* She knew there was a supply for every demand, and that she was "unconditioned," working on the spiritual plane, and that "one with God is a majority."

She had contemplated buying new blankets, when "the tempter," the adverse thought or reasoning mind, suggested, "Don't buy the blankets, perhaps, after all, you won't get an apartment and you will have no use for them." She promptly replied (to herself): "I'll dig my ditches by buying the blankets!" So she prepared for the apartment — acted as though she already had it.

She found one in a miraculous way, and it was given to her although there were over *two hundred other applicants.*

The blankets showed active faith.

It is needless to say that the ditches dug by the three kings in the desert were filled to over-flowing. (Read, II Kings.)

Getting into the spiritual swing of things is no easy matter for the average person. The adverse thoughts of doubt and fear surge from the subconscious. They are the "army of the aliens" which must be put to flight. This explains why it is so often, "darkest before the dawn."

A big demonstration is usually preceded by tormenting thoughts.

Having made a statement of high spiritual truth one challenges the old beliefs in the subconscious, and "error is exposed" to be put out.

This is the time when one must make his affirmations of truth repeatedly, and rejoice and give

thanks that he has already received. "Before ye call I shall answer." This means that "every good and perfect gift" is already man's awaiting his recognition.

Man can only receive what he sees himself receiving.

The children of Israel were told that they could have all the land they could see. This is true of every man. He has only the land within his own mental vision. Every great work, every big accomplishment, has been brought into manifestation through holding to the vision, and often just before the big achievement, comes apparent failure and discouragement.

The children of Israel when they reached the "Promised Land," were afraid to go in, for they said it was filled with giants who made them feel like grasshoppers. "And there we saw the giants and we were in our own sight as grass-hoppers." This is almost every man's experience.

However, the one who knows spiritual law, is undisturbed by appearance, and rejoices while he is "yet in captivity." That is, he holds to his vision and gives thanks that the end is accomplished, he has received.

Jesus Christ gave a wonderful example of this. He said to his disciples: "Say not ye, there are yet four months and then cometh the harvest? Behold, I say unto you, lift up your eyes and look on the fields; for they are ripe already to harvest." His clear vision pierced the "world of matter" and he saw clearly the fourth dimensional world, things as they really are, perfect and complete in Divine Mind. So

man must ever hold the vision of his journey's end and demand the manifestation of that which he has already received. It may be his perfect health, love, supply, self-expression, home or friends.

They are all finished and perfect ideas registered in Divine Mind (man's own superconscious mind) and must come through him, not to him. For example: A man came to me asking for treatments for success. It was imperative that he raise, within a certain time, fifty-thousand dollars for his business. The time limit was almost up, when he came to me in despair. No one wanted to invest in his enterprise, and the bank had flatly refused a loan. I replied: "I suppose you lost your temper while at the bank, therefore your power. You can control any situation if you first control yourself." "Go back to the bank," I added, "and I will treat." My treatment was: "You are identified in love with the spirit of everyone connected with the bank. Let the divine idea come out of this situation." He replied, "Woman, you are talking about an impossibility. Tomorrow is Saturday; the bank closes at twelve, and my train won't get me there until ten, and the time limit is up tomorrow, and anyway they won't do it. It's too late." I replied, "God doesn't need any time and is never too late. With Him all things are possible." I added, "I don't know anything about business, but I know all about God." He replied: "It all sounds fine when I sit here listening to you, but when I go out it's terrible." He lived in a distant city, and I did not hear from him for a week, then came a letter. It read: "You were right. I raised the money, and will never again doubt the truth of all that you told me."

I saw him a few weeks later, and I said, "What happened? You evidently had plenty of time, after all." He replied "My train was late, and I got there just fifteen minutes to twelve. I walked into the bank quietly and said, 'I have come for the loan,' and they gave it to me without a question."

It was the last fifteen minutes of the time allotted to him, and Infinite Spirit was not too late. In this instance the man could never have demonstrated alone. He needed someone to help him hold to the vision. This is what one man can do for another.

Jesus Christ knew the truth of this when he said: "If two of you shall agree on earth as touching anything that they shall ask, it shall be done for them of my Father which is in heaven." One gets too close to his own affairs and becomes doubtful and fearful.

The friend or "healer" sees clearly the success, health, or prosperity, and never wavers, because he is not close to the situation.

It is much easier to "demonstrate" for someone else than for one's self, so a person should not hesitate to ask for help, if he feels himself wavering.

A keen observer of life once said, "no man can fail, if some one person sees him successful." Such is the power of the vision, and many a great man has owed his success to a wife, or sister, or a friend who "believed in him" and held without wavering to the perfect pattern!

THE POWER OF THE WORD

"By thy words thou shalt be justified,
and by thy words thou shalt be condemned."

A person knowing the power of the word, becomes very careful of his conversation. He has only to watch the reaction of his words to know that they do "not return void." Through his spoken word, man is continually making laws for himself.

I knew a man who said, "I always miss a car. It invariably pulls out just as I arrive."

His daughter said: "I always catch a car. It's sure to come just as I get there." This occurred for years. Each had made a separate law for himself, one of failure, one of success. This is the psychology of superstitions.

The horse-shoe or rabbit's foot contains no power, but man's spoken word and belief that it will bring him good luck creates expectancy in the subconscious mind, and attracts a "lucky situation." I find however, this will not "work" when man has advanced spiritually and knows a higher law. One cannot turn back, and must put away "graven images." For example: Two men in my class had had great success in business for several

months, when suddenly everything "went to smash." We tried to analyze the situation, and I found, instead of making their affirmations and looking to God for success and prosperity, they had each bought a "lucky monkey." I said: "Oh I see, you have been trusting in the lucky monkeys instead of God." "Put away the lucky monkeys and call on the law of forgiveness," for man has power to forgive or neutralize his mistakes.

They decided to throw the lucky monkeys down a coalhole, and all went well again. This does not mean, however, that one should throw away every "lucky" ornament or horse-shoe about the house, but he must recognize that the power back of it is the one and only power, God, and that the object simply gives him a feeling of expectancy.

I was with a friend, one day, who was in deep despair. In crossing the street, she picked up a horseshoe. Immediately, she was filled with joy and hope. She said God had sent her the horseshoe in order to keep up her courage.

It was indeed, at that moment, about the only thing that could have registered in her consciousness. Her hope became faith, and she ultimately made a wonderful demonstration. I wish to make the point clear that the men previously mentioned were depending on the monkeys, alone, while this woman recognized the power back of the horseshoe.

I know, in my own case, it took a long while to get out of a belief that a certain thing brought disappointment. If the thing happened, disappointment invariably followed. I found the only way I could

make a change in the subconscious, was by asserting, "There are not two powers, there is only one power, God, therefore, there are no disappointments, and this thing means a happy surprise." I noticed a change at once, and happy surprises commenced coming my way.

I have a friend who said nothing could induce her to walk under a ladder. I said, "If you are afraid, you are giving in to a belief in two powers, Good and Evil, instead of one. As God is absolute, there can be no opposing power, unless man makes the false of evil for himself. To show you believe in only One Power, God, and that there is no power or reality in evil, walk under the next ladder you see." Soon after, she went to her bank. She wished to open her box in the safe-deposit vault, and there stood a ladder on her pathway. It was impossible to reach the box without passing under the ladder. She quailed with fear and turned back. She could not face the lion on her pathway. However, when she reached the street, my words rang in her ears and she decided to return and walk under it. It was a big moment in her life, for ladders had held her in bondage for years. She retraced her steps to the vault, and the ladder was no longer there! This so often happens! If one is willing to do a thing he is afraid to do, he does not have to.

It is the law of nonresistance, which is so little understood.

Someone has said that courage contains genius and magic. Face a situation fearlessly, and there is no situation to face; it falls away of its own weight.

The explanation is, that fear attracted the lad-

der on the woman's pathway, and fearlessness removed it.

Thus the invisible forces are ever working for man who is always "pulling the strings" himself, though he does not know it. Owing to the vibratory power of words, whatever man voices, he begins to attract. People who continually speak of disease, invariably attract it.

After man knows the truth, he cannot be too careful of his words. For example: I have a friend who often says on the 'phone, "Do come to see me and have a fine old-fashioned chat." This "old-fashioned chat" means an hour of about five hundred to a thousand destructive words, the principal topics being loss, lack, failure and sickness.

I reply: "No, I thank you, I've had enough old-fashioned chats in my life, they are too expensive, but I will be glad to have a new-fashioned chat, and talk about what we want, not what we don't want." There is an old saying that man only dares use his words for three purposes, to "heal, bless or prosper." What man says of others will be said of him, and what he wishes for another, he is wishing for himself.

"Curses, like chickens, come home to roost."

If a man wishes someone "bad luck," he is sure to attract bad luck himself. If he wishes to aid someone to success, he is wishing and aiding himself to success.

The body may be renewed and transformed through the spoken word and clear vision, and disease be completely wiped out of the consciousness. The metaphysician knows that all disease has

a mental correspondence, and in order to heal the body one must first "heal the soul."

The soul is the subconscious mind, and it must be "saved" from wrong thinking.

In the twenty-third psalm, we read: "He restoreth my soul." This means that the subconscious mind or soul, must be restored with the right ideas, and the "mystical marriage" is the marriage of the soul and the spirit, or the subconscious and superconscious mind. They must be one. When the subconscious is flooded with the perfect ideas of the superconscious, God and man are one. "I and the Father are one." That is, he is one with the realm of perfect ideas; he is the man made in God's likeness and image (imagination) and is given power and dominion over all created things, his mind, body and affairs.

It is safe to say that all sickness and unhappiness come from the violation of the law of love. A new commandment I give unto you, "Love one another," and in the Game of Life, love or good-will takes every trick.

For example: A woman I know, had, for years an appearance of a terrible skin disease. The doctors told her it was incurable, and she was in despair. She was on the stage, and she feared she would soon have to give up her profession, and she had no other means of support. She, however, procured a good engagement, and on the opening night, made a great "hit." She received flattering notices from the critics, and was joyful and elated. The next day she received a notice of dismissal. A man in the cast had been jealous of her success and had caused her to be sent away. She felt hatred and resentment

taking complete possession of her, and she cried out, "Oh God don't let me hate that man." That night she worked for hours "in the silence."

She said, "I soon came into a very deep silence. I seemed to be at peace with myself, with the man, and with the whole world. I continued this for two following nights, and on the third day I found I was healed completely of the skin disease!" In asking for love, or good will, she had fulfilled the law, ("for love is the fulfilling of the law") and the disease (which came from subconscious resentment) was wiped out.

Continual criticism produces rheumatism, as critical, inharmonious thoughts cause unnatural deposits in the blood, which settle in the joints.

False growths are caused by jealousy, hatred, unforgiveness, fear, etc. Every disease is caused by a mind not at ease. I said once, in my class, "There is no use asking anyone 'What's the matter with you?' we might just as well say, 'Who's the matter with you?' " Unforgiveness is the most prolific cause of disease. It will harden arteries or liver, and affect the eye-sight. In its train are endless ills.

I called on a woman, one day, who said she was ill from having eaten a poisoned oyster. I replied, "Oh, no, the oyster was harmless, you poisoned the oyster. What's the matter with you?" She answered, "Oh about nineteen people." She had quarrelled with nineteen people and had become so inharmonious that she attracted the wrong oyster.

Any inharmony on the external, indicates there is mental inharmony. "As the within, so the without."

Man's only enemies are within himself. "And a

man's foes shall be they of his own household." Personality is one of the last enemies to be overcome, as this planet is taking its initiation in love. It was Christ's message—"Peace on Earth, good will towards man." The enlightened man, therefore, endeavors to perfect himself upon his neighbor. His work is with himself, to send out goodwill and blessings to every man, and the marvelous thing is, that if one blesses a man he has no power to harm him.

For example: A man came to me asking to "treat" for success in business. He was selling machinery, and a rival appeared on the scene with what he proclaimed, was a better machine, and my friend feared defeat. I said, "First of all, we must wipe out all fear, and know that God protects your interests, and that the divine idea must come out of the situation. That is, the right machine will be sold, by the right man, to the right man." And I added, "Don't hold one critical thought towards that man. Bless him all day, and be willing not to sell your machine, if it isn't the divine idea." So he went to the meeting, fearless and nonresistant, and blessing the other man. He said the outcome was very remarkable. The other man's machine refused to work, and he sold his without the slightest difficulty. "But I say unto you, love your enemies, bless them that curse you, do good to them that hate you, and pray for them which spitefully use you and persecute you."

Good-will produces a great aura of protection about the one who sends it, and "No weapon that is

formed against him shall prosper." In other words, love and good-will destroy the enemies within one's self, therefore, one has no enemies on the external!

"There is peace on earth for him who sends good-will to man!"

THE LAW OF NONRESISTANCE

"Resist not evil. Be not overcome of evil,
but overcome evil with good."

Nothing on earth can resist an absolutely non-resistant person.

The Chinese say that water is the most powerful element, because it is perfectly nonresistant. It can wear away a rock, and sweep all before it.

Jesus Christ said, "Resist not evil," for He knew in reality, there is no evil, therefore nothing to resist. Evil has come of man's "vain imagination," or a belief in two powers, good and evil.

There is an old legend, that Adam and Eve ate of "Maya the Tree of Illusion," and saw two powers instead of one power, God.

Therefore, evil is a false law man has made for himself, through psychoma or soul sleep. Soul sleep means, that man's soul has been hypnotized by the race belief (of sin, sickness and death, etc.) which is carnal or mortal thought, and his affairs have outpictured his illusions.

We have read in a preceding chapter, that man's soul is his subconscious mind, and whatever he feels deeply, good or bad, is outpictured by that faithful servant. His body and affairs show forth what he

has been picturing. The sick man has pictured sickness, the poor man, poverty, the rich man, wealth.

People often say, "why does a little child attract illness, when it is too young even to know what it means?"

I answer that children are sensitive and receptive to the thoughts of others about them, and often outpicture the fears of their parents.

I heard a metaphysician once say, "If you do not run your subconscious mind yourself, someone else will run it for you."

Mothers often, unconsciously, attract illness and disaster to their children, by continually holding them in thoughts of fear, and watching for symptoms.

For example: A friend asked a woman if her little girl had had the measles. She replied promptly, "not yet!" This implied that she was expecting the illness, and, therefore, preparing the way for what she did not want for herself and child.

However, the man who is centered and established in right thinking, the man who sends out only good-will to his fellow-man, and who is without fear, cannot be *touched or influenced by the negative thoughts of others.* In fact, he could then receive only good thoughts, as he himself, sends forth only good thoughts.

Resistance is Hell, for it places man in a "state of torment."

A metaphysician once gave me a wonderful recipe for taking every trick in the game of life, it is the acme of nonresistance. He gave it in this way; "At one time in my life, I baptized children, and of course, they had many names. Now I no longer

baptize children, but I baptize events, but *I give every event the same name.* If I have a failure I baptize it success, in the name of the Father, and of the Son, and of the Holy Ghost!"

In this, we see the great law of transmutation, founded on nonresistance. Through his spoken word, every failure was transmuted into success.

For example: A woman who required money, and who knew the spiritual law of opulence, was thrown continually in a business-way, with a man who made her feel very poor. He talked lack and limitation and she commenced to catch his poverty thoughts, so she disliked him, and blamed him for her failure. She knew in order to demonstrate her supply, she must first feel that she *had received—a feeling of opulence must precede its manifestation.*

It dawned upon her, one day, that she was resisting the situation, and seeing two powers instead of one. So she blessed the man and baptized the situation "Success"! She affirmed, "As there is only one power, God, this man is here for my good and my prosperity" (just what he did not seem to be there for). Soon after that she met, *through this man,* a woman who gave her for a service rendered, several thousand dollars, and the man moved to a distant city, and faded harmoniously from her life. Make the statement, "Every man is a golden link in the chain of my good," for all men are God in manifestation, *awaiting the opportunity given by man, himself, to serve the divine plan of his life.*

"Bless your enemy, and you rob him of his ammunition." His arrows will be transmuted into blessings.

This law is true of nations as well as individuals. Bless a nation, send love and good-will to every inhabitant, and it is robbed of its power to harm.

Man can only get the right idea of nonresistance, through spiritual understanding. My students have often said: "I don't want to be a door-mat." I reply "when you use nonresistance with wisdom, no one will ever be able to walk over you."

Another example: One day I was impatiently awaiting an important telephone call. I resisted every call that came in and made no out-going calls myself, reasoning that it might interfere with the one I was awaiting.

Instead of saying, "Divine ideas never conflict, the call will come at the right time," leaving it to Infinite Intelligence to arrange, I commenced to manage things myself—I made the battle mine, not God's and remained tense and anxious. The bell did not ring for about an hour, and I glanced at the 'phone and found the receiver had been off that length of time, and the 'phone was disconnected. My anxiety, fear and belief in interference, had brought on a total eclipse of the telephone. Realizing what I had done, I commenced blessing the situation at once; I baptized it "success," and affirmed, "I cannot lose any call that belongs to me by divine right; I am under *grace, and not under law.*"

A friend rushed out to the nearest telephone, to notify the Company to reconnect.

She entered a crowded grocery, but the proprietor left his customers and attended to the call himself. My 'phone was connected at once, and two

minutes later, I received a very important call, and about an hour afterward, the one I had been awaiting.

One's ships come in over a calm sea.

So long as man resists a situation, he will have it with him. If he runs away from it, it will run after him.

For example: I repeated this to a woman one day, and she replied, "How true that is! I was unhappy at home, I disliked my mother, who was critical and domineering; so I ran away and was married—but I married my mother, for my husband was exactly like my mother, and I had the same situation to face again." "Agree with thine adversary quickly."

That means, agree that the adverse situation is good, be undisturbed by it, and it falls away of its own weight. "None of these things move me," is a wonderful affirmation.

The inharmonious situation comes from some inharmony within man himself.

When there is, in him, no emotional response to an inharmonious situation, it fades away forever, from his pathway.

So we see man's work is ever with himself.

People have said to me, "Give treatments to change my husband, or my brother." I reply, "No, I will give *treatments to change you;* when you change, your husband and your brother will change."

One of my students was in the habit of lying. I told her it was a failure method and if she lied, she would be lied to. She replied, "I don't care, I can't possibly get along without lying."

One day she was speaking on the 'phone to a man with whom she was very much in love. She turned to me and said, "I don't trust him, I know he's lying to me." I replied, "Well, you lie yourself, so someone has to lie to you, and you will be sure it will be just the person you want the truth from." Some time after that, I saw her, and she said, "I'm cured of lying."

I questioned: "What cured you?"

She replied: "I have been living with a woman who lied worse than I did!"

One is often cured of his faults by seeing them in others.

Life is a mirror, and we find only ourselves reflected in our associates.

Living in the past is a failure method and a violation of spiritual law.

Jesus Christ said, "Behold, now is the accepted time." "Now is the day of Salvation."

Lot's wife looked back and was turned into a pillar of salt.

The robbers of time are the past and the future. Man should bless the past, and forget it, if it keeps him in bondage, and bless the future, knowing it has in store for him endless joys, but live *fully in the now.*

For example: A woman came to me, complaining that she had no money with which to buy

Christmas gifts. She said, "Last year was so different; I had plenty of money and gave lovely presents, and this year I have scarcely a cent."

I replied, "You will never demonstrate money while you are pathetic and live in the past. Live fully in the *now,* and *get ready to give Christmas presents.* Dig your ditches, and the money will come." She exclaimed, "I know what to do! I will buy some tinsel twine, Christmas seals and wrapping paper." I replied, "Do that, and the *presents will come and stick themselves to the Christmas seals.*"

This too, was showing financial fearlessness and faith in God, as the reasoning mind said, "Keep every cent you have, as you are not sure you will get any more."

She bought the seals, paper and twine, and a few days before Christmas, received a gift of several hundred dollars. Buying the seals and twine had impressed the subconscious with expectancy, and opened the way for the manifestation of the money. She purchased all the presents in plenty of time.

Man must live suspended in the moment.

"Look well, therefore, to this Day! Such is the salutation of the Dawn."

He must be spiritually alert, ever awaiting his leads, taking advantage of every opportunity.

One day, I said continually (silently), "Infinite Spirit, don't let me miss a trick," and something very important was told to me that evening. It is most necessary to begin the day with right words.

Make an affirmation immediately upon waking.

For example:

"Thy will be done this day! Today is a day of

completion; I give thanks for this perfect day, miracle shall follow miracle and wonders shall never cease."

Make this a habit, and one will see wonders and miracles come into his life.

One morning I picked up a book and read, "Look with wonder at that which is before you!" It seemed to be my message for the day, so I repeated again and again, "Look with wonder at that which is before you."

At about noon, a large sum of money, was given me, which I had been desiring for a certain purpose.

In a following chapter, I will give affirmations that I have found most effective. However, one should never use an affirmation unless it is absolutely satisfying and convincing to his own consciousness, and often an affirmative is changed to suit different people.

For example: The following has brought success to many:

"I have a wonderful work, in a wonderful way, I give wonderful service, for wonderful pay!"

I gave the first two lines to one of my students, and she added the last two.

It made a *most powerful statement,* as there should always be perfect payment for perfect service, and a rhyme sinks easily into the subconscious. She went about singing it aloud and soon did receive wonderful work in a wonderful way, and gave wonderful service for wonderful pay.

Another student, a business man, took it, and changed the word work to business.

He repeated, "I have a wonderful business, in a

wonderful way, and I give wonderful service for wonderful pay." That afternoon he made a forty-one-thousand dollar deal, though there had been no activity in his affairs for months.

Every affirmation must be carefully worded and completely "cover the ground."

For example: I knew a woman, who was in great need, and made a demand for work. She received a great deal of work, but was never paid anything. She now knows to add, "wonderful service for wonderful pay."

It is man's divine right to have plenty! More than enough!

"His barns should be full, and his cup should flow over!" This is God's idea for man, and when man breaks down the barriers of lack in his own consciousness, the Golden Age will be his, and every righteous desire of his heart fulfilled!

THE LAW OF KARMA

and

THE LAW OF FORGIVENESS

Man receives only that which he gives. The Game of Life is a game of boomerangs. Man's thoughts, deeds and words, return to him sooner or later, with astounding accuracy.

This is the law of Karma, which is Sanskrit for "Comeback." "Whatsoever a man soweth, that shall he also reap."

For example: A friend told me this story of herself, illustrating the law. She said, "I make all my Karma on my aunt, whatever I say to her, some one says to me. I am often irritable at home, and one day, said to my aunt, who was talking to me during dinner. *'No more talk, I wish to eat in peace.'* "

"The following day, I was lunching with a woman with whom I wished to make a great impression. I was talking animatedly, when she said: *'No more talk, I wish to eat in peace!'* "

My friend is high in consciousness, so her Karma

returns much more quickly than to one on the mental plane.

The more man knows, the more he is responsible for, and a person with a knowledge of Spiritual Law, which he does not practice, suffers greatly, in consequence. "The fear of the Lord (law) is the beginning of wisdom." If we read the word Lord, law, it will make many passages in the Bible much clearer.

"Vengeance is mine, I will repay, saith the Lord" (law). It is the law which takes vengeance, not God. God sees man perfect, "created in his own image," (imagination) and given "power and dominion."

This is the perfect idea of man, registered in Divine Mind, awaiting man's recognition; for man can only be what he sees himself to be, and only attain what he sees himself attaining.

"Nothing ever happens without an on-looker" is an ancient saying.

Man sees first his failure or success, his joy or sorrow, before it swings into visibility from the scenes set in his own imagination. We have observed this in the mother picturing disease for her child, or a woman seeing success for her husband.

Jesus Christ said, "And ye shall know the truth and the truth shall make you free."

So, we see freedom (from all unhappy conditions) comes through knowledge—a knowledge of Spiritual Law.

Obedience precedes authority, and the law obeys man when he obeys the law. The law of electricity must be obeyed before it becomes man's servant.

When handled ignorantly, it becomes man's deadly foe. *So with the laws of Mind!*

For example: A woman with a strong personal will, wished she owned a house which belonged to an acquaintance, and she often made mental pictures of herself living in the house. In the course of time, the man died and she moved into the house. Several years afterwards, coming into the knowledge of Spiritual Law, she said to me: "Do you think I had anything to do with that man's death?" I replied: "Yes, your desire was so strong, everything made way for it, but you paid your Karmic debt. Your husband, whom you loved devotedly, died soon after, and the house was a white elephant on your hands for years."

The original owner, however, could not have been affected by her thoughts had he been positive in the truth, nor her husband, but they were both under Karmic law. The woman should have said (feeling the great desire for the house), "Infinite Intelligence, give me the right house, equally as charming as this, the house *which is mine by divine right.*"

The divine selection would have given perfect satisfaction and brought good to all. The divine pattern is the only safe pattern to work by.

Desire is a tremendous force, and must be directed in the right channels, or chaos ensues.

In demonstrating, the most important step is the *first step, to "ask aright."*

Man should always demand only that which is his by *divine right.*

To go back to the illustration: Had the woman taken this attitude: "If this house, I desire, is mine, I cannot lose it, if it is not, give me its equivalent," the man might have decided to move out, harmoniously (had it been the divine selection for her) or another house would have been substituted. Anything forced into manifestation through personal will, is always "ill-got," and has "ever bad success."

Man is admonished, "My will be done not thine," and the curious thing is, man always gets just what he desires when he does relinquish personal will, thereby enabling Infinite Intelligence to work through him.

"Stand ye still and see the salvation of the Lord" (law).

For example: A woman came to me in great distress. Her daughter had determined to take a very hazardous trip, and the mother was filled with fear.

She said she had used every argument, had pointed out the dangers to be encountered, and forbidden her to go, but the daughter became more and more rebellious and determined. I said to the mother, "You are forcing your personal will upon your daughter, which you have no right to do, and your fear of the trip is only attracting it, for man attracts what he fears." I added, "Let go, and take your mental hands off; *put it in God's Hands, and use this statement*:" "I put this situation in the hands of Infinite Love and Wisdom; if this trip is the Divine plan, I bless it and no longer resist, but if it is not divinely planned, I give thanks that it is now dissolved and dissipated." A day or two after that,

her daughter said to her, "Mother, I have given up the trip," and the situation returned to its "native nothingness."

It is learning to "stand still," which seems so difficult for man. I have dealt more fully with this law in the chapter on nonresistance.

I will give another example of sowing and reaping, which came in the most curious way.

A woman came to me saying, she had received a counterfeit twenty-dollar bill, given to her at the bank. She was much disturbed, for, she said, "The people at the bank will never acknowledge their mistake."

I replied, "Let us analyze the situation and find out why you attracted it." She thought a few moments and exclaimed: "I know it, I sent a friend a lot of stagemoney, just for a joke." So the law had sent her some stagemoney, for it doesn't know anything about jokes.

I said, "Now we will call on the law of forgiveness, and neutralize the situation."

Christianity is founded upon the law of forgiveness — Christ has redeemed us from the curse of the Karmic law, and the Christ within each man is his Redeemer and Salvation from all inharmonious conditions.

So I said: "Infinite Spirit, we call on the law of forgiveness and give thanks that she is under grace and not under law, and cannot lose this twenty dollars which is hers by divine right."

"Now," I said, "Go back to the bank and tell them, fearlessly, that it was given you, there by mistake."

She obeyed, and to her surprise, they apologized and gave her another bill, treating her most courteously.

So knowledge of the Law gives man power to "rub out his mistakes." Man cannot force the external to be what he is not.

If he desires riches, he must be rich first in consciousness.

For example: A woman came to me asking treatment for prosperity. She did not take much interest in her household affairs, and her home was in great disorder.

I said to her, "If you wish to be rich, you must be orderly. All men with great wealth are orderly—and order is heaven's first law." I added, "You will never become rich with a burnt match in the pincushion."

She had a good sense of humor and commenced immediately, putting her house in order. She rearranged furniture, straightened out bureau drawers, cleaned rugs, and soon made a big financial demonstration—a gift from a relative. The woman, herself, became made over, and keeps herself keyed-up financially, by being ever watchful of the *external and expecting prosperity, knowing God is her supply.*

Many people are in ignorance of the fact that gifts and things are investments, and that hoarding and saving invariably lead to loss.

"There is that scattereth and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty."

For example: I knew a man who wanted to buy a

fur-lined overcoat. He and his wife went to various shops, but there was none he wanted. He said they were all too cheap-looking. At last, he was shown one, the salesman said was valued at a thousand dollars, but which the manager would sell him for five-hundred dollars, as it was late in the season.

His financial possessions amounted to about seven hundred dollars. The reasoning mind would have said, "You can't afford to spend nearly all you have on a coat," but he was very intuitive and never reasoned.

He turned to his wife and said, "If I get this coat, I'll make a ton of money!" So his wife consented, weakly.

About a month later, he received a ten-thousand-dollar commission. The coat made him feel so rich, it linked him with success and prosperity; without the coat, he would not have received the commission. It was an investment paying large dividends!

If man ignores these leadings to spend or to give, the same amount of money will go in an uninteresting or unhappy way.

For example: A woman told me, on Thanksgiving Day, she informed her family that they could not afford a Thanksgiving dinner. She had the money, but decided to save it.

A few days later, someone entered her room and took from the bureau drawer the exact amount the dinner would have cost.

The law always stands back of the man who spends fearlessly, with wisdom.

For example: One of my students was shopping

with her little nephew. The child clamored for a toy, which she told him she could not afford to buy.

She realized suddenly that she was seeking lack, and not recognizing God as her supply!

So she bought the toy, and on her way home, picked *up, in the street, the exact amount of money she had paid for it.*

Man's supply is inexhaustible and unfailing when fully trusted, but faith or trust must precede the demonstration. "According to your faith be it unto you." "Faith is the substance of things hoped for, the evidence of things not seen—" for faith holds the vision steady, and the adverse pictures are dissolved and dissipated, and "in due season we shall reap, if we faint not."

Jesus Christ brought the good news (the gospel) that there was a higher law than the law of Karma —and that that law transcends the law of Karma. It is the law of grace, or forgiveness. It is the law which *frees man from the law of cause and effect—the law of consequence. "Under grace, and not under law."*

We are told that on this plane, man reaps where he has not sown; the gifts of God are simply poured out upon him. "All that the Kingdom affords is his." This continued state of bliss awaits the man who has overcome the race (or world) thought.

In the world thought there is tribulation, but Jesus Christ said: "Be of good cheer; I have overcome the world."

The world thought is that of sin, sickness and death. He saw their absolute unreality and said

sickness and sorrow shall pass away and death itself, the last enemy, be overcome.

We know now, from a scientific standpoint, that death could be overcome by stamping the subconscious mind with the conviction of eternal youth and eternal life.

The subconscious, being simply power without direction, *carries out orders without questioning.*

Working under the direction of the superconscious (the Christ or God within man) the "resurrection of the body" would be accomplished.

Man would no longer throw off his body in death, it would be transformed into the "body electric," sung by Walt Whitman, for Christianity is founded upon the forgiveness of sins and "an empty tomb."

CASTING THE BURDEN

Impressing the Subconscious

When man knows his own powers and the workings of his mind, his great desire is to find an easy and quick way to impress the subconscious with good, for simply an intellectual knowledge of the Truth will not bring results.

In my own case, I found the easiest way is in "casting the burden."

A metaphysician once explained it in this manner. He said, "The only thing which gives anything weight in nature, is the law of gravitation, and if a boulder could be taken high above the planet, there would be no weight in that boulder; and that is what Jesus Christ meant when he said: "My yoke is easy and my burden is light."

He had overcome the world vibration, and functioned in the fourth dimensional realm, where there is only perfection, completion, life and joy.

He said: "Come to me all ye that labor and are heavy laden, and I will give you rest." "Take my yoke upon you, for my yoke is easy and my burden is light."

We are also told in the fifty-fifth Psalm, to "cast thy burden upon the Lord." Many passages in the

Bible state that the *battle is God's* not man's and that man is always to *"stand still" and see the Salvation of the Lord.*

This indicates that the superconscious mind (or Christ within) is the department which fights man's battle and relieves him of burdens.

We see, therefore, that man violates law if he carries a burden, and a burden is an adverse thought or condition, and this thought or condition has its root in the subconscious.

It seems almost impossible to make any headway directing the subconscious from the conscious, or reasoning mind, as the reasoning mind (the intellect) is limited in its conceptions, and filled with doubts and fears.

How scientific it then is, to cast the burden upon the superconscious mind (or Christ within) where it is "made light," or dissolved into its "native nothingness."

For example: A woman in urgent need of money, "made light" upon the Christ within, the superconscious, with the statement, "I cast this burden of lack on the Christ (within) and I go free to have plenty!"

The belief in lack was her burden, and as she cast it upon the Superconscious with its belief of plenty, an avalanche of supply was the result.

We read, "The Christ in you the hope of glory."

Another example: One of my students had been given a new piano, and there was no room in her studio for it until she had moved out the old one. She was in a state of perplexity. She wanted to keep the old piano, but knew of no place to send it. She

became desperate, as the new piano was to be sent immediately; in fact, was on its way, with no place to put it. She said it came to her to repeat, "I cast this burden on the Christ within, and I go free."

A few moments later, her 'phone rang, and a woman friend asked if she might rent her old piano, and it was moved out, a few minutes before the new one arrived.

I knew a woman, whose burden was resentment. She said, "I cast this burden of resentment on the Christ within, and I go free, to be loving, harmonious and happy." The Almighty superconscious, flooded the subconscious with love, and her whole life was changed. For years, resentment had held her in a state of torment and imprisoned her soul (the subconscious mind).

The statement should be made over and over and over, sometimes for hours at a time, silently or audibly, with quietness but determination.

I have often compared it to winding-up a victrola. We must wind ourselves up with spoken words.

I have noticed, in "casting the burden," after a little while, one seems to see clearly. It is impossible to have clear vision, while in the throes of carnal mind. Doubts and fear poison the mind and body and imagination runs riot, attracting disaster and disease.

In steadily repeating the affirmation, "I cast this burden on the Christ within, and go free," the vision clears, and with it a feeling of relief, and sooner or later comes *the manifestation of good, be it health, happiness or supply.*

One of my students once asked me to explain the "darkness before the dawn." I referred in a preced-

ing chapter to the fact that often, before the big demonstration "everything seems to go wrong," and deep depression clouds the consciousness. It means that out of the subconscious are rising the doubts and fears of the ages. These old derelicts of the subconscious rise to the surface, *to be put out.*

It is then, that man should clap his cymbals, like Jehoshaphat, and give thanks that he is saved, even though he seems surrounded by the enemy (the situation of lack or disease). The student continued, "How long must one remain in the dark" and I replied, "until one *can see in the dark,"* and *"casting the burden enables one to see in the dark."*

In order to impress the subconscious, active faith is always essential.

"Faith without works is dead." In these chapters I have endeavored to bring out this point.

Jesus Christ showed active faith when "He commanded the multitude to sit down on the ground," before he gave thanks for the loaves and the fishes.

I will give another example showing how necessary this step is. In fact, active faith is the bridge, over which man passes to his Promised Land.

Through misunderstanding, a woman had been separated from her husband, whom she loved deeply. He refused all offers of reconciliation and would not communicate with her in any way.

Coming into the knowledge of Spiritual law, she denied the appearance of separation. She made this statement: "There is no separation in Divine Mind, therefore, I cannot be separated from the love and companionship which are mine by divine right."

She showed active faith by arranging a place for

him at the table every day; thereby impressing the subconscious with a picture of his *return.* Over a year passed, but she never wavered, and *one day he walked in.*

The subconscious is often impressed through music. Music has a fourth dimensional quality and releases the soul from imprisonment. It makes wonderful things seem *possible, and easy of accomplishment!*

I have a friend who uses her victrola, daily, for this purpose. It puts her in perfect harmony and releases the imagination.

Another woman often dances while making her affirmations. The rhythm and harmony of music and motion carry her words forth with tremendous power.

The student must remember also, not to despise the "day of small things."

Invariably, before a demonstration, come "signs of land."

Before Columbus reached America, he saw birds and twigs which showed him land was near. So it is with a demonstration; but often the student mistakes it for the demonstration itself, and is disappointed.

For example: A woman had "spoken the word" for a set of dishes. Not long afterwards a friend gave her a dish which was old and cracked.

She came to me and said, "Well, I asked for a set of dishes, and all I got was a cracked plate."

I replied, "The plate was only signs of land. It shows your dishes are coming—look upon it as birds and seaweed," and not long afterwards the dishes came.

Continually "making-believe," impresses the subconscious. If one makes believe he is rich, and makes believe he is successful, in "due time he will reap."

Children are always "making believe," and "except ye be converted, and become as little children, ye shall not enter the Kingdom of Heaven."

For example: I know of a woman who was very poor, but no one could make her *feel poor.* She earned a small amount of money from rich friends, who constantly reminded her of her poverty, and to be careful and saving. Regardless of their admonitions, she would spend all her earnings on a hat, or make someone a gift, and be in a rapturous state of mind. Her thoughts were always centered on beautiful clothes and "rings and things," but without envying others.

She lived in the world of the wondrous, and only riches seemed real to her. Before long she married a rich man, and the rings and things became visible. I do not know whether the man was the "Divine Selection," but opulence had to manifest in her life, as she had imaged only opulence.

There is no peace or happiness for man, until he has erased all fear from the subconscious.

Fear is misdirected energy and must be redirected, or transmuted into Faith.

Jesus Christ said, "Why are ye fearful, O ye of little faith?" "All things are possible to him that believeth."

I am asked, so often by my students, *"How can I get rid of fear?"*

I reply, *"By walking up to the thing you are afraid of."*

"The lion takes its fierceness from your fear."

Walk up to the lion, and he will disappear; run away and he runs after you.

I have shown in previous chapters, how the lion of lack disappeared when the individual spent money fearlessly, showing faith that God was his supply and therefore, unfailing.

Many of my students have come out of the bondage of poverty, and are now bountifully supplied, through losing all fear of letting money go out. The subconscious is impressed with the truth that *God is the Giver and the Gift;* therefore as one is one with the Giver, he is one with the Gift. A splendid statement is, "I now thank God the Giver for God the Gift."

Man has so long separated himself from his good and his supply, through thoughts of separation and lack, that sometimes, it takes dynamite to dislodge these false ideas from the subconscious, and the dynamite is a big situation.

We see in the foregoing illustration, how the individual was freed from his bondage by *showing fearlessness.*

Man should watch himself hourly to detect if his motive for action is fear or faith.

"Choose ye this day whom we shall serve," fear or faith.

Perhaps one's fear is of personality. Then do not avoid the people feared; be willing to meet them cheerfully, and they will either prove "golden links in the chain of one's good," or disappear harmoniously from one's pathway.

Perhaps one's fear is of disease or germs. Then

one should be fearless and undisturbed in a germ-laden situation, and he would be immune.

One can only contract germs while vibrating at the same rate as the germ, and fear drags men down to the level of the germ. Of course, the disease laden germ is the product of carnal mind, as all thought must objectify. Germs do not exist in the superconscious or Divine Mind, therefore are the product of man's "vain imagination."

"In the twinkling of an eye," man's release will come when he realizes *there is no power in evil.*

The material world will fade away, and the fourth dimensional world, the "World of the Wondrous," will swing into manifestation.

"And I saw a new heaven, and a new earth—and there shall be no more death, neither sorrow nor crying, neither shall there be any more pain; for the former things are passed away."

LOVE

Every man on this planet is taking his initiation in love. "A new commandment I give unto you, that ye love one another." Ouspensky states, in "Tertium Organum," that "love is a cosmic phenomenon," and opens to man the fourth dimensional world, "The World of the Wondrous."

Real love is selfless and free from fear. It pours itself out upon the object of its affection, without demanding any return. Its joy is in the joy of giving. Love is God in manifestation, and the strongest magnetic force in the universe. Pure, unselfish love *draws to itself its own;* it does not need to seek or demand. Scarcely anyone has the faintest conception of real love. Man is selfish, tyrannical or fearful in his affections, thereby losing the thing he loves. Jealousy is the worst enemy of love, for the imagination runs riot, seeing the loved one attracted to another, and invariably these fears objectify if they are not neutralized.

For example: A woman came to me in deep distress. The man she loved had left her for other women, and said he never intended to marry her.

She was torn with jealousy and resentment and said she hoped he would suffer as he had made her suffer; and added, "How could he leave me when I loved him so much?"

I replied, "You are not loving that man, you are hating him," and added, "*You can never receive what you have never given. Give a perfect love and you will receive a perfect love.* Perfect yourself on this man. Give him a perfect, *unselfish* love, demanding nothing in return, do not criticise or condemn, and *bless him wherever he is.*"

She replied, "No, I won't bless him unless I know where he is!"

"Well," I said, "that is not real love."

"When you *send out real love,* real love will return to you, either from this man or his equivalent, for if this man is not the divine selection, you will not want him. As you are one with God, you are one with the love which belongs to you by divine right."

Several months passed, and matters remained about the same, but she was working conscientiously with herself. I said, "When you are no longer disturbed by his cruelty, he will cease to be cruel, as you are attracting it through your own emotions."

Then I told her of a brotherhood in India, who never said, "Good morning" to each other. They used these words: "*I salute the Divinity in you.*" They saluted the divinity in every man, and in the wild animals in the jungle, and they were never harmed, for they *saw only God in every* living thing. I said, "Salute the divinity in this man, and say, 'I see your divine self only. I see you as God sees

you, perfect, made in His image and likeness.' "

She found she was becoming more poised, and gradually losing her resentment. He was a Captain, and she always called him "The Cap."

One day, she said, suddenly, *"God bless the Cap wherever he is."*

I replied: "Now, that is real love, and when you have become a 'complete circle,' and are no longer disturbed by the situation, you will have his love, or attract its equivalent."

I was moving at this time, and did not have a telephone, so was out of touch with her for a few weeks, when one morning I received a letter saying, "We are married."

At the earliest opportunity, I paid her a call. My first words were, "What happened?"

"Oh," she exclaimed, "a miracle! One day I woke up and all suffering had ceased. I saw him that evening and he asked me to marry him. We were married in about a week, and I have never seen a more devoted man."

There is an old saying: *"No man is your enemy, no man is your friend, every man is your teacher."*

So one should become impersonal and learn what each man has to teach him, and soon he would learn his lessons and be free.

The woman's lover was teaching her selfless love, which every man, sooner or later, must learn.

Suffering is not necessary for man's development; it is the result of violation of spiritual law, but few people seem able to rouse themselves from their "soul sleep" without it. When people are

happy, they usually become selfish, and automatically the law of Karma is set in action. Man often suffers loss through lack of appreciation.

I knew a woman who had a very nice husband, but she said often, "I don't care anything about being married, but that is nothing against my husband. I'm simply not interested in married life."

She had other interests, and scarcely remembered she had a husband. She only thought of him when she saw him. One day her husband told her he was in love with another woman, and left. She came to me in distress and resentment.

I replied, "It is exactly what you spoke the word for. You said you didn't care anything about being married, so the subconscious worked to get you unmarried."

She said, "Oh yes, I see. People get what they want, and then feel very much hurt."

She soon became in perfect harmony with the situation, and knew they were both much happier apart.

When a woman becomes indifferent or critical, and ceases to be an inspiration to her husband, he misses the stimulus of their early relationship and is restless and unhappy.

A man came to me dejected, miserable and poor. His wife was interested in the "Science of Numbers," and had had him read. It seems the report was not very favorable, for he said, "My wife says I'll never amount to anything because I am a two."

I replied, "I don't care what your number is, you are a perfect idea in divine mind, and we will demand the success and prosperity which are *already planned* for you by that Infinite Intelligence."

Within a few weeks, he had a very fine position, and a year or two later, he achieved a brilliant success as a writer. No man is a success in business unless he loves his work. The picture the artist paints for love (of his art) is his greatest work. The pot-boiler is always something to live down.

No man can attract money if he despises it. Many people are kept in poverty by saying: "Money means nothing to me, and I have a contempt for people who have it."

This is the reason so many artists are poor. Their contempt for money separates them from it.

I remember hearing one artist say of another, "He's no good as an artist, he has money in the bank."

This attitude of mind, of course, separates man from his supply; he must be in harmony with a thing in order to attract it.

Money is God in manifestation, as freedom from want and limitation, but it must be always kept in circulation and put to right uses. Hoarding and saving react with grim vengeance.

This does not mean that man should not have houses and lots, stocks and bonds, for "the barns of the righteous man shall be full." It means man should not hoard even the principal, if an occasion arises, when money is necessary. In letting it go out fearlessly and cheerfully he opens the way for more

to come in, for God is man's unfailing and inexhaustible supply.

This is the spiritual attitude towards money and the great Bank of the Universal never fails!

We see an example of hoarding in the film production of "Greed." The woman won five thousand dollars in a lottery, but would not spend it. She hoarded and saved, let her husband suffer and starve, and eventually she scrubbed floors for a living.

She loved the money itself and put it above everything, and one night she was murdered and the money taken from her.

This is an example of where "love of money is the root of all evil." Money in itself, is good and beneficial, but used for destructive purposes, hoarded and saved, or considered more important than love, brings disease and disaster, and the loss of the money itself.

Follow the path of love, and all things are added, *for God is love,* and *God is supply;* follow the path of selfishness and greed, and the supply vanishes, or man is separated from it.

For example; I knew the case of a very rich woman, who hoarded her income. She rarely gave anything away, but bought and bought and bought things for herself.

She was very fond of necklaces, and a friend once asked her how many she possessed. She replied, "Sixty-seven." She bought them and put them away, carefully wrapped in tissue paper. Had she used the necklaces it would have been quite legitimate, but she was violating "the law of use." Her

closets were filled with clothes she never wore, and jewels which never saw the light.

The woman's arms were gradually becoming paralyzed from holding on to things, and eventually she was considered incapable of looking after her affairs and her wealth was handed over to others to manage.

So man, in ignorance of the law, brings about his own destruction.

All disease, all unhappiness, come from the violation of the law of love. Man's boomerangs of hate, resentment and criticism, come back laden with sickness and sorrow. Love seems almost a lost art, but the man with the knowledge of spiritual law knows it must be regained, for without it, he has "become as sounding brass and tinkling cymbals."

For example: I had a student who came to me, month after month, to clean her consciousness of resentment. After a while, she arrived at the point where she resented only one woman, but that one woman kept her busy. Little by little she became poised and harmonious, and one day, all resentment was wiped out.

She came in radiant, and exclaimed "You can't understand how I feel! The woman said something to me and instead of being furious I was loving and kind, and she apologized and was perfectly lovely to me.

No one can understand the marvelous lightness I feel within!"

Love and good-will are invaluable in business.

For example: A woman came to me, complain-

ing of her employer. She said she was cold and critical and knew she did not want her in the position.

"Well," I replied, "Salute the Divinity in the woman and send her love."

She said "I can't; she's a marble woman."

I answered, "You remember the story of the sculptor who asked for a certain piece of marble. He was asked why he wanted it, and he replied, 'because there is an angel in the marble,' and out of it he produced a wonderful work of art."

She said, "Very well, I'll try it." A week later she came back and said, "I did what you told me to, and now the woman is very kind, and took me out in her car."

People are sometimes filled with remorse for having done someone an unkindness, perhaps years ago.

If the wrong cannot be righted, its effect can be neutralized by doing some one a kindness *in the present*.

"This one thing I do, forgetting those things which are behind and reaching forth unto those things which are before."

Sorrow, regret and remorse tear down the cells of the body, and poison the atmosphere of the individual.

A woman said to me in deep sorrow, "Treat me to be happy and joyous, for my sorrow makes me so irritable with the members of my family that I keep making more Karma."

I was asked to treat a woman who was mourning

for her daughter. I denied all belief in loss and separation, and affirmed that God was the woman's joy, love and peace.

The woman gained her poise at once, but sent word by her son, not to treat any longer, because she was "so happy, it wasn't respectable."

So "mortal mind" loves to hang on to its griefs and regrets.

I knew a woman who went about bragging of her troubles, so, of course, she always had something to brag about.

The old idea was if a woman did not worry about her children, she was not a good mother.

Now, we know that mother-fear is responsible for many of the diseases and accidents which come into the lives of children.

For fear pictures vividly the disease or situation feared, and these pictures objectify, if not neutralized.

Happy is the mother who can say sincerely, that she puts her child in God's hands, and *knows* therefore, that he is divinely protected.

For example: A woman awoke suddenly, in the night, feeling her brother was in great danger. Instead of giving in to her fears, she commenced making statements of Truth, saying, "Man is a perfect idea in Divine Mind, and is always in his right place, therefore, my brother is in his right place, and is divinely protected."

The next day she found that her brother had been in close proximity to an explosion in a mine, but had miraculously escaped.

So man is his brother's keeper (in thought) and every man should know that the thing he loves dwells in "the secret place of the most high, and abides under the shadow of the Almighty."

"There shall no evil befall thee, neither shall any plague come nigh thy dwelling."

"Perfect love casteth out fear. He that feareth is not made perfect in love," and "Love is the fulfilling of the Law."

INTUITION OR GUIDANCE

"In all thy ways acknowledge Him and
He shall direct thy paths."

There is nothing too great of accomplishment for the man who knows the power of his word, and who follows his intuitive leads. By the word he starts in action unseen forces and can rebuild his body or remold his affairs.

It is, therefore, of the utmost importance to choose the right words, and the student carefully selects the affirmation he wishes to catapult into the invisible.

He knows that God is his supply, that there is a supply for every demand, and that his spoken word releases this supply.

"Ask and ye shall receive."

Man must make the first move. "Draw nigh to God and He will draw nigh to you."

I have often been asked just how to make a demonstration.

I reply: "Speak the word and then do not do anything until you ge t a definite lead." Demand the lead, saying, "Infinite Spirit, reveal to me the way, let me know if there is anything for me to do."

The answer will come through intuition (or hunch); a chance remark from someone, or a passage in a book, etc., etc. The answers are sometimes quite startling in their exactness. For example: A woman desired a large sum of money. She spoke the words: "Infinite Spirit, open the way for my immediate supply, let all that is mine by divine right now reach me, in great avalanches of abundance." Then she added: "Give me a definite lead, let me know if there is anything for me to do."

The thought came quickly, "Give a certain friend" (who had helped her spiritually) "a hundred dollars." She told her friend, who said, "Wait and get another lead, before giving it." So she waited, and that day met a woman who said to her, "I gave someone a dollar today; it was just as much for me, as it would be for you to give someone a hundred."

This was indeed an unmistakable lead, so she knew she was right in giving the hundred dollars. It was a gift which proved a great investment, for shortly after that, a large sum of money came to her in a remarkable way.

Giving opens the way for receiving. In order to create activity in finances, one should give. Tithing or giving one-tenth of one's income, is an old Jewish custom, and is sure to bring increase. Many of the richest men in this country have been tithers, and I have never known it to fail as an investment.

The tenth-part goes forth and returns blessed and multiplied. But the gift or tithe must be given with love and cheerfulness, for "God loveth a cheerful giver." Bills should be paid cheerfully; all

money should be sent forth fearlessly and with a blessing.

This attitude of mind makes man master of money. It is his to obey, and his spoken word then opens vast reservoirs of wealth.

Man, himself, limits his supply by his limited vision. Sometimes the student has a great realization of wealth, but is afraid to act.

The vision and action must go hand in hand, as in the case of the man who bought the fur-lined overcoat.

A woman came to me asking me to "speak the word" for a position. So I demanded: "Infinite Spirit, open the way for this woman's right position." Never ask for just "a position"; ask for the right position, the place already planned in Divine Mind, as it is the only one that will give satisfaction.

I then gave thanks that she had already received, and that it would manifest quickly. Very soon, she had three positions offered her, two in New York and one in Palm Beach, and she did not know which to choose. I said, "Ask for a definite lead."

The time was almost up and was still undecided, when one day, she telephoned, "When I woke up this morning, I could smell Palm Beach." She had been there before and knew its balmy fragrance.

I replied: "Well, if you can smell Palm Beach from here, it is certainly your lead." She accepted the position, and it proved a great success. Often one's lead comes at an unexpected time.

One day, I was walking down the street, when I suddenly felt a strong urge to go to a certain bakery, a block or two away.

The reasoning mind resisted, arguing, "There is nothing there that you want."

However, I had learned not to reason, so I went to the bakery, looked at everything, and there was certainly nothing there that I wanted, but coming out I encountered a woman I had thought of often, and who was in great need of the help which I could give her.

So often, one goes for one thing and finds another.

Intuition is a spiritual faculty and does not explain, but simply *points the way.*

A person often receives a lead during a "treatment." The idea that comes may seem quite irrelevant, but some of God's leadings are "mysterious."

In the class, one day, I was treating that each individual would receive a definite lead. A woman came to me afterwards, and said: "While you were treating, I got the hunch to take my furniture out of storage and get an apartment." The woman had come to be treated for health. I told her I knew in getting a home of her own, her health would improve, and I added, "I believe your trouble, which is a congestion, has come from having things stored away. Congestion of things causes congestion in the body. You have violated the law of use, and your body is paying the penalty."

So I gave thanks that *"Divine order was established in her mind, body and affairs."*

People little dream of how their affairs react on the body. There is a mental correspondence for every disease. A person might receive instantaneous healing through the realization of his body

being a perfect idea in Divine Mind, and, therefore, whole and perfect, but if he continues his destructive thinking, hoarding, hating, fearing, condemning, the disease will return.

Jesus Christ knew that all sickness came from sin, but admonished the leper after the healing, to go and sin no more, lest a worse thing come upon him.

So man's soul (or subconscious mind) must be washed whiter than snow, for permanent healing; and the metaphysician is always delving deep for the "correspondence."

Jesus Christ said, "Condemn not lest ye also be condemned."

"Judge not, lest ye be judged."

Many people have attracted disease and unhappiness through condemnation of others.

What man condemns in others, he attracts to himself.

For example: A friend came to me in anger and distress, because her husband had deserted her for another woman. She condemned the other woman, and said continually, "She knew he was a married man, and had no right to accept his attentions."

I replied. "Stop condemning the woman, bless her, and be through with the situation, otherwise, you are attracting the same thing to yourself."

She was deaf to my words, and a year or two later, became deeply interested in a married man, herself.

Man picks up a live-wire whenever he criticises or condemns, and may expect a shock.

Indecision is a stumbling-block in many a path-

way. In order to overcome it, make the statement, repeatedly, *"I am always under direct inspiration; I make right decisions, quickly."*

These words impress the subconscious, and soon one finds himself awake and alert, making his right moves without hesitation. I have found it destructive to look to the psychic plane for guidance, as it is the plane of many minds and not "The One Mind."

As man opens his mind to subjectivity, he becomes a target for destructive forces. The psychic plane is the result of man's mortal thought, and is on the "plane of opposites." He may receive either good or bad messages.

The science of numbers and the reading of horoscopes, keep man down on the mental (or mortal) plane, for they deal only with the Karmic path.

I know of a man who should have been dead, years ago, according to his horoscope, but he is alive and a leader of one of the biggest movements in this country for the uplift of humanity.

It takes a very strong mind to neutralize a prophecy of evil. The student should declare, "Every false prophecy shall come to naught; every plan my Father in heaven has not planned, shall be dissolved and dissipated, the divine idea now comes to pass."

However, if any good message has ever been given one, of coming happiness, or wealth, harbor and expect it, and it will manifest sooner or later, through the law of expectancy.

Man's will should be used to back the universal will. "I will that the will of God be done."

It is God's will to give every man, every righteous desire of his heart, and man's will should be used to hold the perfect vision, without wavering.

The prodigal son said: "I will arise and go to my Father."

It is, indeed, often an effort of the will to leave the husks and swine of mortal thinking. It is so much easier, for the average person, to have fear than faith; *so faith is an effort of the will.*

As man becomes spiritually awakened he recognizes that any external inharmony is the correspondence of mental inharmony. If he stumbles or falls, he may know he is stumbling or falling in consciousness.

One day, a student was walking along the street condemning someone in her thoughts. She was saying, mentally, "That woman is the most disagreeable woman on earth," when suddenly three boy scouts rushed around the corner and almost knocked her over. She did not condemn the boy scouts, but immediately called on the law of forgiveness, and "saluted the divinity" in the woman. Wisdom's way are ways of pleasantness and all her paths are peace.

When one has made his demands upon the Universal, he must be ready for surprises. Everything may seem to be going wrong, when in reality, it is going right.

For example: A woman was told that there was no loss in divine mind, therefore, she could not lose anything which belonged to her; anything lost, would be returned, or she would receive its equivalent.

Several years previously, she had lost two thou-

sand dollars. She had loaned the money to a relative during her lifetime, but the relative had died, leaving no mention of it in her will. The woman was resentful and angry, and as she had no written statement of the transaction, she never received the money, so she determined to deny the loss, and collect the two thousand dollars from the Bank of the Universal. She had to begin by forgiving the woman, as resentment and unforgiveness close the doors of this wonderful bank.

She made this statement, "I deny loss, there is no loss in Divine Mind, therefore, I cannot lose the two thousand dollars, which belong to me by divine right. *"As one door shuts another door opens."*

She was living in an apartment house which was for sale; and in the lease was a clause, stating that if the house was sold, the tenants would be required to move out within ninety days.

Suddenly, the landlord broke the leases and raised the rent. Again, injustice was on her pathway, but this time she was undisturbed. She blessed the landlord, and said, "As the rent has been raised, it means that I'll be that much richer, for God is my supply."

New leases were made out for the advanced rent, but by some divine mistake, the ninety days clause had been forgotten. Soon after, the landlord had an opportunity to sell the house. On account of the mistake in the new leases, the tenants held possession for another year.

The agent offered each tenant two hundred dollars if he would vacate. Several families moved; three remained, including the woman. A month

or two passed, and the agent again appeared. This time he said to the woman, "Will you break your lease for the sum of fifteen hundred dollars?" It flashed upon her, "Here comes the two thousand dollars." She remembered having said to friends in the house, "We will all act together if anything more is said about leaving." So her *lead* was to consult her friends.

These friends said: "Well, if they have offered you fifteen hundred they will certainly give two thousand." So she received a check for two thousand dollars for giving up the apartment. It was certainly a remarkable working of the law, and the apparent injustice was merely opening the way for her demonstration.

It proved that there is no loss, and when man takes his spiritual stand, he collects all that is his from this great Reservoir of Good.

"I will restore to you the years the locusts have eaten."

The locusts are the doubts, fears, resentments and regrets of mortal thinking.

These adverse thoughts, alone, rob man; for "No man gives to himself but himself, and no man takes away from himself, but himself."

Man is here to prove God and "to bear witness to the truth," and he can only prove God by bringing plenty out of lack, and justice out of injustice.

"Prove me now herewith, saith the Lord of hosts, if I will not open you the windows of heaven, and pour out a blessing, that there shall not be room enough to receive it."

PERFECT SELF-EXPRESSION

or

THE DIVINE DESIGN

"No wind can drive my bark astray
nor change the tide of destiny."

There is for each man, perfect self-expression. There is a place which he is to fill and no one else can fill, something which he is to do, which no one else can do; it is his destiny!

This achievement is held, a perfect idea in Divine Mind, awaiting man's recognition. As the imaging faculty is the creative faculty, it is necessary for man to see the idea, before it can manifest.

So man's highest demand is for the *Divine Design of his life.*

He may not have the faintest conception of what it is, for there is, possibly, some marvelous talent, hidden deep within him.

His demand should be: *"Infinite Spirit, open the way for the Divine Design of my life to manifest; let the genius within me now be released; let me see clearly the perfect plan."*

The perfect plan includes health, wealth, love and perfect self-expression. This is the *square of life,* which brings perfect happiness. When one has made this demand, he may find great changes taking place in his life, for nearly every man has wandered far from the Divine Design.

I know, in one woman's case, it was as though a cyclone had struck her affairs, but readjustments came quickly, and new and wonderful conditions took the place of old ones.

Perfect self-expression will never be labor; but of such absorbing interest that it will seem almost like play. The student knows, also, as man comes into the world financed by God, the *supply* needed for his perfect self-expression will be at hand.

Many a genius has struggled for years with the problem of supply, when his spoken word, and faith, would have released quickly, the necessary funds.

For example: After the class, one day, a man came to me and handed me a cent.

He said: "I have just seven cents in the world, and I'm going to give you one; for I have faith in the power of your spoken word. I want you to speak the word for my perfect self-expression and prosperity."

I "spoke the word," and did not see him again until a year later. He came in one day, successful and happy, with a roll of yellow bills in his pocket. He said, "Immediately after you spoke the word, I had a position offered me in a distant city, and am now demonstrating health, happiness and supply."

A woman's perfect self-expression may be in

becoming a perfect wife, a perfect mother, a perfect home-maker and not necessarily in having a public career.

Demand definite leads, and the way will be made easy and successful.

One should not visualize or force a mental picture. When he demands the Divine Design to come into his conscious mind, he will receive flashes of inspiration, and begin to see himself making some great accomplishment. This is the picture, or idea, he must hold without wavering.

The thing man seeks is seeking him—*the telephone was seeking Bell!*

Parents should never force careers and professions upon their children. With a knowledge of spiritual Truth, the Divine Plan could be spoken for, early in childhood, or prenatally.

A prenatal treatment should be: "Let the God in this child have perfect expression; let the Divine Design of his mind, body and affairs be made manifest throughout his life, throughout eternity."

God's will be done, not man's; God's pattern, not man's pattern, is the command we find running through all the scriptures, and the Bible is a book dealing with the science of the mind. It is a book telling man how to release his soul (or subconscious mind) from bondage.

The battles described are pictures of man waging war against mortal thoughts. "A man's foes shall be they of his own household." Every man is Jehoshaphat, and every man is David, who slays Goliath (mortal thinking) with the little white stone (faith).

So man must be careful that he is not the "wicked and slothful servant" who buried his talent. There is a terrible penalty to be paid for not using one's ability.

Often fear stands between man and his perfect self-expression. Stage-fright has hampered many a genius. This may be overcome by the spoken word, or treatment. The individual then loses all self-consciousness, and feels simply that he is a channel for Infinite Intelligence to express Itself through.

He is under direct inspiration, fearless, and confident; for he feels that it is the "Father within" him who does the work.

A young boy came often to my class with his mother. He asked me to "speak the word" for his coming examinations at school.

I told him to make the statement: "I am one with Infinite Intelligence. I know everything I should know on this subject." He had an excellent knowledge of history, but was not sure of his arithmetic. I saw him afterwards, and he said: "I spoke the word for my arithmetic, and passed with the highest honors; but thought I could depend on myself for history, and got a very poor mark." Man often receives a set-back when he is "too sure of himself," which means he is trusting to his personality and not the "Father within."

Another one of my students gave me an example of this. She took an extended trip abroad one summer, visiting many countries, where she was ignorant of the languages. She was calling for guidance and protection every minute, and her affairs went smoothly and miraculously. Her lug-

gage was never delayed nor lost! Accommodations were always ready for her at the best hotels; and she had perfect service wherever she went. She returned to New York. Knowing the language, she felt God was no longer necessary, so looked after her affairs in an ordinary manner.

Everything went wrong, her trunks delayed, amid inharmony and confusion. The student must form the habit of "practicing the Presence of God" every minute. *"In all thy ways acknowledge him;"* nothing is too small or too great.

Sometimes an insignificant incident may be the turning point in a man's life.

Robert Fulton, watching some boiling water, simmering in a tea kettle, saw a steamboat!

I have seen a student, often, keep back his demonstration, through resistance, or pointing the way.

He pins his faith to one channel only, and dictates just the way he desires the manifestation to come, which brings things to a standstill.

"My way, not your way!" is the command of Infinite Intelligence. Like all Power, be it steam or electricity, it must have a nonresistant engine or instrument to work through, and man is that engine or instrument.

Over and over again, man is told to "stand still". "Oh Judah, fear not; but to-morrow go out against them, for the Lord will be with you. You shall not need to fight this battle; set yourselves, stand ye still, and see the salvation of the Lord with you."

We see this in the incidents of the two thousand dollars coming to the woman through the landlord when she became *nonresistant* and *undisturbed,*

and the woman who won the man's love "after all suffering had ceased."

The student's goal is *Poise! Poise* is *Power,* for it gives God-Power a chance to rush through man, to "will and to do Its good pleasure."

Poised, he thinks clearly, and makes "right decisions quickly." "He never misses a trick."

Anger blurs the visions, poisons the blood, is the root of many diseases, and causes wrong decision leading to failure.

It has been named one of the worst "sins," as its reaction is so harmful. The student learns that in metaphysics sin has a much broader meaning than in the old teaching. "Whatsoever is not of faith is sin."

He finds that fear and worry are deadly sins. They are inverted faith, and through distorted mental pictures, bring to pass the thing he fears. His work is to drive out these enemies (from the subconscious mind). "When Man is *fearless he is finished!*" Maeterlinck says, that "Man is God afraid."

So, as we read in the previous chapters: Man can only vanquish fear by walking up to the thing he is afraid of. When Jehoshaphat and his army prepared to meet the enemy, singing "Praise the Lord, for his mercy endureth forever," they found their enemies had destroyed each other, and there was nothing to fight.

For example: A woman asked a friend to deliver a message to another friend. The woman feared to give the message, as the reasoning mind said, "Don't get mixed-up in this affair, don't give that message."

She was troubled in spirit, for she had given her promise. At last, she determined to "walk up to the lion," and call on the law of divine protection. She met the friend to whom she was to deliver the message. She opened her mouth to speak it, when her friend said, "So-and-So has left town." This made it unnecessary to give the message, as the situation depended upon the person being in town. As she was willing to do it, she was not obliged to; as she did not fear, the situation vanished.

The student often delays his demonstration through a belief in incompletion. He should make this statement:

"In Divine Mind there is only completion, therefore, my demonstration is completed. My perfect work, my perfect home, my perfect health." Whatever he demands are perfect ideas registered in Divine Mind, and must manifest, "under grace in a perfect way." He gives thanks he has already received on the invisible, and makes active preparation for receiving on the visible.

One of my students was in need of a financial demonstration. She came to me and asked why it was not completed.

I replied: "Perhaps, you are in the habit of leaving things unfinished, and the subconscious has gotten into the habit of not completing (as the without, so the within)."

She said, "You are right. I often *begin things* and never finish them.

"I'll go home and finish something I commenced weeks ago, and I know it will be symbolic of my demonstration."

So she sewed assiduously, and the article was soon completed. Shortly after, the money came in a most curious manner.

Her husband was paid his salary twice that month. He told the people of their mistake, and they sent word to keep it.

When man asks, *believing, he must receive, for God creates His own channels!*

I have been sometimes asked, "Suppose one has several talents, how is he to know which one to choose?" Demand to be shown definitely. Say: "Infinite Spirit, give me a definite lead, reveal to me my perfect self-expression, show me which talent I am to make use of now."

I have known people to suddenly enter a new line of work, and be fully equipped, with little or no training. So make the statement: *"I am fully equipped for the Divine Plan of my life,"* and be fearless in grasping opportunities.

Some people are cheerful givers, but bad receivers. They refuse gifts through pride, or some negative reason, thereby blocking their channels, and invariably find themselves eventually with little or nothing. For example: A woman who had given away a great deal of money, had a gift offered her of several thousand dollars. She refused to take it, saying she did not need it. Shortly after that, her finances were "tied up," and she found herself in debt for that amount. Man should receive gracefully the bread returning to him upon the water—freely ye have given, freely ye shall receive.

There is always the perfect balance of giving

and receiving, and though man should give without thinking of returns, he violates law if he does not accept the returns which come to him; for all gifts are from God, man being merely the channel.

A thought of lack should never be held over the giver.

For example: When the man gave me the one cent, I did not say: "Poor man, he cannot afford to give me that." I saw him rich and prosperous, with his supply pouring in. It was this thought which brought it. If one has been a bad receiver, he must become a good one, and take even a postage stamp if it is given him, and open up his channels for receiving.

The Lord loveth a cheerful receiver, as well as a cheerful giver.

I have often been asked why one man is born rich and healthy, and another poor and sick.

Where there is an effect there is always a cause; there is no such thing as chance.

This question is answered through the law of reincarnation. Man goes through many births and deaths, until he knows the truth which sets him free.

He is drawn back to the earth plane through unsatisfied desire, to pay his Karmic debts, or to "fulfill his destiny."

The man born rich and healthy has had pictures in his subconscious mind, in his past life, of health and riches; and the poor and sick man, of disease and poverty. Man manifests, on any plane, the sum total of his subconscious beliefs.

However, birth and death are man-made laws,

for the "wages of sin is death"; the Adamic fall in consciousness through the belief in *two powers.* The real man, spiritual man, is birthless and deathless! He never was born and has never died— "As he was in the beginning, he is now, and ever shall be!"

So through the truth, man is set free from the law of Karma, sin and death, and manifests the man made in "His image and likeness." Man's freedom comes through fulfilling his destiny, bringing into manifestation the Divine Design of his life.

His lord will say unto him: "Well done thou good and faithful servant, thou hast been faithful over a few things, I will make thee ruler over many things (death itself); enter thou into the joy of thy Lord (eternal life)."

DENIALS AND AFFIRMATIONS

"Thou shalt also decree a thing, and it shall be established unto thee."

All the good that is to be made manifest in man's life is already an accomplished fact in divine mind, and is released through man's recognition, or spoken word, so he must be careful to decree that only the Divine Idea be made manifest, for often, he decrees, through his "idle words," failure or misfortune.

It is, therefore, of the utmost importance, to word one's demands correctly, as stated in a previous chapter.

If one desires a home, friend, position or any other good thing, make the demand for the "divine selection."

For example: "Infinite Spirit, open the way for my right home, my right friend, my right position. I give thanks *it now manifests under grace in a perfect way.*"

The latter part of the statement is most important. For example: I knew a woman who demanded a thousand dollars. Her daughter was injured and they received a thousand dollars indemnity, so it did not come in a "perfect way."

The demand should have been worded in this way: "Infinite Spirit, I give thanks that the one thousand dollars, which is mine by divine right, is now released, and reaches me under grace, in a perfect way."

As one grows in a financial consciousness, he should demand that the enormous sums of money, which are his by divine right, reach him under grace, in perfect ways.

It is impossible for man to release more than he thinks is possible, for one is bound by the limited expectancies of the subconscious. He must enlarge his expectancies in order to receive in a larger way.

Man so often limits himself in his demands. For example: A student made the demand for six hundred dollars, by a certain date. He did receive it, but heard afterwards, that he came very near receiving a thousand dollars, but he was given just six hundred, as the result of his spoken word.

"They limited the Holy One of Isreal." Wealth is a matter of consciousness. The French have a legend giving an example of this. A poor man was walking along a road when he met a traveler, who stopped him and said: "My good friend, I see you are poor. Take this gold nugget, sell it, and you will be rich all your days."

The man was overjoyed at his good fortune, and took the nugget home. He immediately found work and became so prosperous that he did not sell the nugget. Years passed, and he became a very rich man. One day he met a poor man on the road. He stopped him and said: "My good friend,

I will give you this gold nugget, which, if you sell, will make you rich for life." The mendicant took the nugget, had it valued, and found it was only brass. So we see, the first man became rich through feeling rich, thinking the nugget was gold.

Every man has within himself a gold nugget; *it is his consciousness of gold, of opulence, which brings riches into his life.* In making his demands, man begins at his *journey's end,* that is, he declares *he has already received. "Before* ye call I shall answer."

Continually affirming establishes the belief in the subconscious.

It would not be necessary to make an affirmation more than once if one had perfect faith! One should not plead or supplicate, but give thanks repeatedly, that he has received.

"The desert shall *rejoice* and blossom as the rose." This rejoicing which is yet in the desert (state of consciousness) opens the way for release. The Lord's Prayer is in the form of command and demand, "Give us this day our daily bread, and forgive us our debts as we forgive our debtors," and ends in praise, "For thine is the Kingdom and the Power and the Glory, forever. Amen." "Concerning the works of my hands, command ye me." So prayer is command and demand, praise and thanksgiving. The student's work is in making himself believe that "with God all things are possible."

This is easy enough to state in the abstract, but a little more difficult when confronted with a

problem. For example: It was necessary for a woman to demonstrate a large sum of money within a stated time. She knew she must *do something* to get a realization (for realization is manifestation), and she demanded a "lead."

She was walking through a department store, when she saw a very beautiful pink enamel papercutter. She felt the "pull" towards it. The thought came. "I haven't a paper cutter good enough to open letters containing large cheques."

So she bought the papercutter, which the reasoning mind would have called an extravagance. When she held it in her hand, she had a flash of a picture of herself opening an envelope containing a large cheque, and in a few weeks, she received the money. The pink papercutter was her bridge of active faith.

Many stories are told of the power of the subconscious when directed in faith.

For example: A man was spending the night in a farmhouse. The windows of the room had been nailed down, and in the middle of the night he felt suffocated and made his way in the dark to the window. He could not open it, so he smashed the pane with his fist, drew in draughts of fine fresh air, and had a wonderful night's sleep.

The next morning, he found he had smashed the glass of a bookcase and the window had remained closed during the whole night. He had *supplied himself with oxygen, simply by his thought of oxygen.*

When a student starts out to demonstrate, he

should never turn back. "Let not that man who wavers think that he shall receive anything of the Lord."

A colored student once made this wonderful statement, "When I asks the Father for anything, I puts my foot down, and I says: Father, I'll take nothing less than I've asked for, but more!" So man should never compromise: "Having done all —Stand." This is sometimes the most difficult time of demonstrating. The temptation comes to give up, to turn back, to compromise.

"He also serves who only stands and waits."

Demonstrations often come at the eleventh hour because man then lets go, that is, stops reasoning, and Infinite Intelligence has a chance to work.

"Man's dreary desires are answered drearily, and his impatient desires, long delayed or violently fulfilled.

For example: A woman asked me why it was she was constantly losing or breaking her glasses.

We found she often said to herself and others with vexation, "I wish I could get rid of my glasses." So her impatient desire was violently fulfilled. What she should have demanded was perfect eye-sight, but what she registered in the subconscious was simply the impatient desire to be rid of her glasses; so they were continually being broken or lost.

Two attitudes of mind cause loss: depreciation, as in the case of the woman who did not appreciate her husband, *or fear of loss,* which makes a picture of loss in the subconscious.

When a student is able to let go of his problem (cast his burden) he will have instantaneous manifestation.

For example: A woman was out during a very stormy day and her umbrella was blown inside-out. She was about to make a call on some people whom she had never met and she did not wish to make her first appearance with a dilapidated umbrella. She could not throw it away, as it did not belong to her. So in desperation, she exclaimed: "Oh, God, you take charge of this umbrella, I don't know what to do."

A moment later, a voice behind her said: "Lady, do you want your umbrella mended?" There stood an umbrella mender.

She replied, "Indeed, I do."

The man mended the umbrella, while she went into the house to pay her call, and when she returned, she had a good umbrella. So there is always an umbrella mender at hand, on man's pathway, when one puts the umbrella (or situation) in God's Hands.

One should always follow a denial with an affirmation.

For example: I was called on the 'phone late one night to treat a man whom I had never seen. He was apparently very ill. I made the statement: "I deny this appearance of disease. It is unreal, therefore cannot register in his consciousness; this man is a perfect idea in Divine Mind, pure substance expressing perfection."

There is no time or space, in Divine Mind, therefore the word reaches instantly its destination

and does not "return void." I have treated patients in Europe and have found that the result was instantaneous.

I am asked so often the difference between visualizing and visioning. Visualizing is a mental process governed by the reasoning or conscious mind; visioning is a spiritual process, governed by intuition, or the superconscious mind. The student should train his mind to receive these flashes of inspiration, and work out the "divine pictures," through definite leads. When a man can say, "I desire only that which God desires for me," his false desires fade from the consciousness, and a new set of blueprints is given him by the Master Architect, the God within. God's plan for each man transcends the limitation of the reasoning mind, and is always the square of life, containing health, wealth, love and perfect self-expression. Many a man is building for himself in imagination a bungalow when he should be building a palace.

If a student tries to force a demonstration (through the reasoning mind) he brings it to a standstill. "I will hasten it," saith the Lord. He should act only through intuition, or definite leads. "Rest in the Lord and wait patiently. Trust also in him, and he will bring it to pass."

I have seen the law work in the most astonishing manner. For example: A student stated that it was necessary for her to have a hundred dollars by the following day. It was a debt of vital importance which had to be met. I "spoke the word," declaring Spirit was "never too late" and that the supply was at hand.

That evening she phoned me of the miracle. She said that the thought came to her to go to her safe-deposit box at the bank to examine some papers. She looked over the papers, and at the bottom of the box, was a new one hundred dollar-bill. She was astounded, and said she knew she had never put it there, for she had gone through the papers many times. It may have been a materialization, as Jesus Christ materialized the loaves and fishes. Man will reach the stage where his "word is made flesh," or materialized, instantly. "The fields, ripe with the harvest," will manifest immediately, as in all of the miracles of Jesus Christ.

There is a tremendous power alone in the name Jesus Christ. It stands for *Truth Made Manifest.* He said, "Whatsoever ye ask the Father, in my name, he will give it to you."

The power of this name raises the student into the fourth dimension, where he is freed from all astral and psychic influences, and he becomes "unconditioned and absolute, as God Himself is unconditioned and absolute."

I have seen many healings accomplished by using the words, "In the name of Jesus Christ."

Christ was both person and principle; and the Christ within each man is his Redeemer and Salvation.

The Christ within, is his own fourth dimensional self, the man made in God's image and likeness. This is the self which has never failed, never known sickness or sorrow, was never born and has never died. It is the "resurrection and the life" of

each man! "No man cometh to the Father save by the Son," means, that God, the Universal, working on the place of the particular, becomes the Christ in man; and the Holy Ghost, means God-in-action. So daily, man is manifesting the Trinity of Father, Son and Holy Ghost.

Man should make an art of thinking. The Master Thinker is an artist and is careful to paint only the divine designs upon the canvas of his mind; and he paints these pictures with masterly strokes of power and decision, having perfect faith that there is no power to mar their perfection and that they shall manifest in his life the ideal made real.

All power is given man (through right thinking) to bring *his heaven* upon *his earth*, and this is the *goal of the "Game of Life."*

The simple rules are fearless faith, nonresistance and love!

May each reader be now freed from that thing which has held him in bondage through the ages, standing between him and his own, and "know the Truth which makes him free"—free to fulfill his destiny, to bring into manifestation the *"Divine Design of his life,* Health, Wealth, Love and Perfect Self-Expression." "Be ye transformed by the renewing of your mind."

(For Prosperity)

God is my unfailing supply, and large sums of money come to me quickly, under grace, in perfect ways.

(For Right Conditions)

Every plan my Father in heaven has not planned, shall be dissolved and dissipated, and the Divine Idea now comes to pass.

(For Right Conditions)

Only that which is true of God is true of me, for I and the Father are ONE.

(For Faith)

As I am one with God, I am one with my good, for God is both the *Giver* and the *Gift*. I cannot separate the *Giver* from the gift.

(For Right Conditions)

Divine Love now dissolves and dissipates every wrong condition in my mind, body and affairs. Divine Love is the most powerful chemical in the universe, and *dissolves everything* which is not of itself!

(For Health)

Divine Love floods my consciousness with health, and every cell in my body is filled with light.

(For the Eyesight)

My eyes are God's eyes, I see with the eyes of spirit. I see clearly the open way; there are no obstacles on my pathway. I see clearly the perfect plan.

(For Guidance)

I am divinely sensitive to my intuitive leads, and give instant obedience to Thy will.

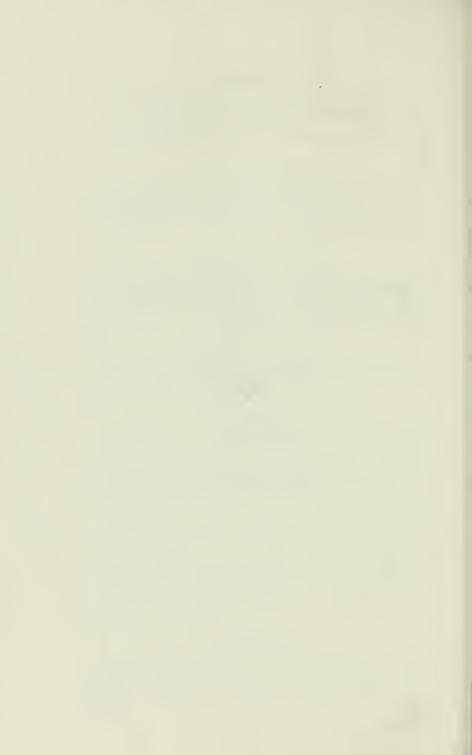
(For the Hearing)

My ears are God's ears, I hear with the ears of spirit. I am nonresistant and am willing to be led. I hear glad tidings of great joy.

(For Right Work)

I have a perfect work
In a perfect way;
I give a perfect service
For perfect pay.

(For Freedom from all Bondage)

I cast this burden on the Christ within, and I go free!

"One secret of her success was that she was always herself . . . colloquial, informal, friendly, and humorous. She herself was very spiritual . . . and taught by familiar, practical, and everyday examples."

— On Florence Scovel Shinn —

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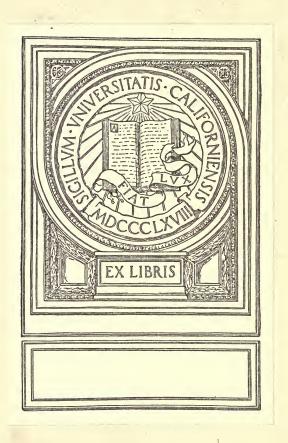
HOW
THEY SUCCEEDED

HOW THEY SUCCEEDED

LIFE STORIES *of* SUCCESSFUL MEN TOLD *by* THEMSELVES

By ORISON SWETT MARDEN

EDITOR *of* "SUCCESS." AUTHOR *of* "WINNING OUT," ETC., ETC.

ILLUSTRATED

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INTRODUCTORY NOTE

THE GREAT INTEREST manifested in the life-stories of successful men and women, which have been published from time to time in the magazine SUCCESS, has actuated their production in book form. Many of these sketches have been revised and rewritten, and new ones have been added. They all contain the elements that make men and women successful; and they are intended to show that character, energy, and an indomitable ambition will succeed in the world, and that in this land, where all men are born equal and have an equal chance in life, there is no reason for despair. I believe that the ideal book for youth should deal with concrete examples; for that which is taken from real life is far more effective than that which is culled from fancy. Character-building, its uplifting, energizing force, has been made the basic principle of this work.

To all who have aided me I express a grateful acknowledgment; and to none more than to those whose life-stories are here related as a lesson to young people. Among those who have given me special assistance in securing those life-stories are, Mr. Harry Steele Morrison, Mr. J. Herbert Welch, Mr. Charles H. Garrett, Mr. Henry Irving Dodge, and Mr. Jesse W. Weik. I am confident that the remarkable exhibit of successful careers made in this book — careers based on sound business principles and honesty — will meet with appreciation on the part of the reading public.

ORISON SWETT MARDEN.

I

MARSHALL FIELD

THIS world-renowned merchant is not easily accessible to interviews, and he seeks no fame for his business achievements. Yet, there is no story more significant, none more full of encouragement and inspiration for youth.

In relating it, as he told it, I have removed my own interrogations, so far as possible, from the interview.

"I was born in Conway, Massachusetts," he said, "in 1835. My father's farm was among the rocks and hills of that section, and not very fertile. All the people were poor in those days. My father was a man who had good judgment, and he made a success out of the farming business. My mother was of a more intellectual bent. Both my parents were anxious that their boys should amount to something in life, and their interest and care helped me.

"I had but few books, scarcely any to speak of. There was not much time for literature. Such books as we had, I made use of.

"I had a leaning toward business, and took up with it as early as possible. I was naturally of a saving disposition: I had to be. Those were saving times. A dollar looked very big to us boys in those days; and as we had difficult labor in earning it, we did not quickly spend it. I however,

DETERMINED NOT TO REMAIN POOR."

"Did you attend both school and college?"

"I attended the common and high schools at home, but not long. I had no college training. Indeed, I cannot say that I had much of any public school education. I left home when seventeen years of age, and of course had not time to study closely.

"My first venture in trade was made as clerk in a country store at Pittsfield, Massachusetts, where everything was sold, including dry-goods. There I remained for four years, and picked up my first knowledge of business. I

SAVED MY EARNINGS AND ATTENDED STRICTLY TO BUSINESS,

and so made those four years valuable to me.

Before I went West, my employer offered me a quarter interest in his business if I would remain with him. Even after I had been here several years, he wrote and offered me a third interest if I would go back.

"But I was already too well placed. I was always interested in the commercial side of life. To this I bent my energies; and

I ALWAYS THOUGHT I WOULD BE A MERCHANT.

"In Chicago, I entered as a clerk in the dry-goods house of Cooley, Woodsworth & Co., in South Water street. There was no guarantee at that time that this place would ever become the western metropolis; the town had plenty of ambition and pluck, but the possibilities of greatness were hardly visible."

It is interesting to note in this connection how closely the story of Mr. Field's progress is connected with Chicago's marvelous growth. The city itself in its relations to the West, was

AN OPPORTUNITY.

A parallel, almost exact, may be drawn between the individual career and the growth of the town. Chicago was organized in 1837, two years after Mr. Field was born on the far-off farm in New England, and the place then had

a population of a little more than four thousand. In 1856, when Mr. Field, fully equipped for a successful mercantile career, became a resident of the future metropolis of the West, the population had grown to little more than eighty-four thousand. Mr. Field's prosperity advanced with the growth of the city; with Chicago he was stricken but not crushed by the great fire of 1871; and with Chicago he advanced again to higher achievement and far greater prosperity than before the calamity.

"What were your equipments for success when you started as a clerk here in Chicago, in 1856?"

"Health and ambition, and what I believe to be sound principles;" answered Mr. Field. "And here I found that in a growing town, no one had to wait for promotion. Good business qualities were promptly discovered, and men were pushed forward rapidly.

"After four years, in 1860, I was made a partner, and in 1865, there was a partial reorganization, and the firm consisted after that of Mr. Leiter, Mr. Palmer and myself (Field, Palmer, and Leiter). Two years later Mr. Palmer withdrew, and until 1881, the style of the firm was Field, Leiter & Co. Mr. Leiter

retired in that year, and since then it has been as at present (Marshall Field & Co.)."

"What contributed most to the great growth of your business?" I asked.

"To answer that question," said Mr. Field, "would be to review the condition of the West from the time Chicago began until the fire in 1871. Everything was coming this way; immigration, railways and water traffic, and Chicago was enjoying 'flush' times.

"There were things to learn about the country, and the man who learned the quickest fared the best. For instance, the comparative newness of rural communities and settlements made a knowledge of local solvency impossible. The old State banking system prevailed, and speculation of every kind was rampant.

A CASH BASIS

"The panic of 1857 swept almost everything away except the house I worked for, and *I learned that the reason they survived was because they understood the nature of the new country, and did a cash business.* That is, they bought for cash, and sold on thirty and sixty days; instead of giving the customers, whose financial condition you could hardly tell any-

thing about, all the time they wanted. *When the panic came, they had no debts, and little owing to them,* and so they weathered it all right. *I learned what I consider my best lesson, and that was to do a cash business."*

"What were some of the *principles* you applied to your business?" I questioned.

"I made it a point that all goods should be exactly what they were represented to be. It was a rule of the house that an exact scrutiny of the quality of all goods purchased should be maintained, and that nothing was to induce the house to place upon the market any line of goods at a shade of variation from their real value. Every article sold must be regarded as warranted, and

EVERY PURCHASER MUST BE ENABLED TO FEEL SECURE."

"Did you suffer any losses or reverses during your career?"

"No loss except by the fire of 1871. It swept away everything,—about three and a half millions. We were, of course, protected by insurance, which would have been sufficient against any ordinary calamity of the kind. But the disaster was so sweeping that some of the

companies which had insured our property were blotted out, and a long time passed before our claims against others were settled. We managed, however, to start again. There were no buildings of brick or stone left standing, but there were some great shells of horse-car barns at State and Twentieth streets which were not burned, and I hired those. We put up signs announcing that we would continue business uninterruptedly, and then rushed the work of fitting things up and getting in the stock."

"Did the panic of 1873 affect your business?"

"Not at all. We did not have any debts."

"May I ask, Mr. Fields, what you consider to have been

THE TURNING POINT

in your career, — the point after which there was no more danger?"

"Saving the first five thousand dollars I ever had, when I might just as well have spent the moderate salary I made. Possession of that sum, once I had it, gave me *the ability to meet opportunities.* That I consider the turning-point."

"What trait of character do you look upon

as having been the most essential in your career?"

"*Perseverance,*" said Mr. Field. But Mr. Selfridge, his most trusted lieutenant, in whose private office we were, insisted upon the addition of "*good judgment*" to this.

"If I am compelled to lay claim to such traits," added Mr. Fields, "it is because I have tried to practise them, and the trying has availed me much. I have tried to make all my acts and commercial moves the result of definite consideration and sound judgment. *There were never any great ventures or risks.* I practised honest, slow-growing business methods, and tried to back them with energy and good system."

At this point, in answer to further questions, Mr. Field disclaimed having overworked in his business, although after the fire of '71 he worked about eighteen hours a day for several weeks:—

"My fortune, however, has not been made in that manner. I believe in reasonable hours, but close attention during those hours. I never worked very many hours a day. People do not work as many hours now as they once did.

The day's labor has shortened in the last twenty years for everyone."

QUALITIES THAT MAKE FOR SUCCESS

"What, Mr. Field," I said, "do you consider to be the first requisite for success in life, so far as the young beginner is concerned?"

"The qualities of *honesty, energy, frugality, integrity,* are more necessary than ever to-day, and there is no success without them. They are so often urged that they have become commonplace, but they are really more prized than ever. And any good fortune that comes by such methods is deserved and admirable."

A COLLEGE EDUCATION AND BUSINESS

"Do you believe a college education for the young man to be a necessity in the future?"

"Not for business purposes. Better training will become more and more a necessity. The truth is, with most young men, a college education means that just at the time when they should be having business principles instilled into them, and be getting themselves energetically pulled together for their life's work, they are sent to college. Then intervenes what many

a young man looks back on as the jolliest time of his life,—four years of college. Often when he comes out of college the young man is unfitted by this good time to buckle down to hard work, and the result is a failure to grasp opportunities that would have opened the way for a successful career."

As to retiring from business, Mr. Field remarked:—

"I do not believe that, when a man no longer attends to his private business in person every day, he has given up interest in affairs. He may be, in fact should be, doing wider and greater work. There certainly is no pleasure in idleness. A man, upon giving up business, does not cease laboring, but really does or should do more in a larger sense. He should interest himself in public affairs. There is no happiness in mere dollars. After they are acquired, one can use but a moderate amount. It is given a man to eat so much, to wear so much, and to have so much shelter, and more he cannot use. When money has supplied these, its mission, so far as the individual is concerned, is fulfilled, and man must look further and higher. It is only in the wider public affairs, where money is a moving force toward the

general welfare, that the possessor of it can possibly find pleasure, and that only in constantly doing more."

"What," I said, "in your estimation, is the greatest good a man can do?"

'The greatest good he can do is to cultivate himself, develop his powers, in order that he may be of greater use to humanity."

II

BELL TELEPHONE TALK

HINTS ON SUCCESS BY ALEXANDER G. BELL.

EXTREMELY polite, always anxious to render courtesy, no one carries great success more gracefully than Alexander G. Bell, the inventor of the telephone. His graciousness has won many a friend, the admiration of many more, and has smoothed many a rugged spot in life.

A NIGHT WORKER

When I first went to see him, it was about eleven o'clock in the morning, and he was in bed! The second time, I thought I would go somewhat later,—at one o'clock in the afternoon. He was eating his breakfast, I was told; and I had to wait some time. He came in apologizing profusely for keeping me waiting. When I told him I had come to interview him,

in behalf of young people, about success—its underlying principles,—he threw back his large head and laughingly said:

"'Nothing succeeds like success.' Success did you say? Why, that is a big subject,—too big a one. You must give me time to think about it; and you having planted the seed in my brain, will have to wait for me."

When I asked what time I should call, he said: "Come any time, if it is only late. I begin my work at about nine or ten o'clock in the evening, and continue until four or five in the morning. Night is a more quiet time to work. It aids thought."

So, when I went to see him again, I made it a point to be late. He cordially invited me into his studio, where, as we both sat on a large and comfortable sofa, he talked long on

THE SUBJECT OF SUCCESS.

The value of this article would be greatly enhanced, if I could add his charming manner of emphasizing what he says, with hands, head, and eyes; and if I could add his beautiful distinctness of speech, due, a great deal, to his having given instruction to deaf mutes, who must read the lips.

" What do you think are the factors of success?" I asked. The reply was prompt and to the point.

PERSEVERANCE APPLIED TO A PRACTICAL END

" Perseverance is the chief; but perseverance must have some practical end, or it does not avail the man possessing it. A person without a practical end in view becomes a crank or an idiot. Such persons fill our insane asylums. The same perseverance that they show in some idiotic idea, if exercised in the accomplishment of something practicable, would no doubt bring success. Perseverance is first, but practicability is chief. The success of the Americans as a nation is due to their great practicability."

" But often what the world calls nonsensical, becomes practical, does it not? You were called crazy, too, once, were you not?"

" There are some things, though, that are always impracticable. Now, take, for instance, this idea of perpetual motion. Scientists have proved that it is impossible. Yet our patent office is continually beset by people applying for inventions on some perpetual motion machine. So the department has adopted a rule whereby

a working model is always required of such applicants. They cannot furnish one. The impossible is incapable of success."

"I have heard of people dreaming inventions."

"That is not at all impossible. I am a believer in unconscious cerebration. The brain is working all the time, though we do not know it. At night, it follows up what we think in the daytime. When I have worked a long time on one thing, I make it a point to bring all the facts regarding it together before I retire; and I have often been surprised at the results. Have you not noticed that, often, what was dark and perplexing to you the night before, is found to be perfectly solved the next morning? We are thinking all the time; it is impossible not to think."

"Can everyone become an inventor?"

"Oh, no; not all minds are constituted alike. Some minds are only adapted to certain things. But as one's mind grows, and one's knowledge of the world's industries widens, it adapts itself to such things as naturally fall to it."

Upon my asking the relation of health to success, the professor replied:—

"I believe it to be a primary principle of suc-

cess; 'mens sana in corpore sano,'—a sound mind in a sound body. The mind in a weak body produces weak ideas; a strong body gives strength to the thought of the mind. Ill health is due to man's artificiality of living. He lives indoors. He becomes, as it were, a hothouse plant. Such a plant is never as successful as a hardy garden plant is. An outdoor life is necessary to health and success, especially in a youth."

"But is not hard study often necessary to success?"

"No; decidedly not. You cannot force ideas. Successful ideas are the result of slow growth. Ideas do not reach perfection in a day, no matter how much study is put upon them. It is *perseverance* in the pursuit of studies that is really wanted.

CONCENTRATION OF PURPOSE

"Next must come concentration of purpose and study. That is another thing I mean to emphasize. Concentrate all your thought upon the work in hand. The sun's rays do not burn until brought to a focus.

"I am now thinking about flying machines. Everything in regard to them, I pick out and

read. When I see a bird flying in the air, I note its manner of flight, as I would not if I were not constantly thinking about artificial flight, and concentrating all my thought and observation upon it. It is like a man who has made the acquaintance of some new word that has been brought forcibly to his notice, although he may have come across it many times before, and not have noticed it particularly.

"*Man is the result of slow growth;* that is why he occupies the position he does in animal life. What does a pup amount to that has gained its growth in a few days or weeks, beside a man who only attains it in as many years. A horse is often a grandfather before a boy has attained his full maturity. The most successful men in the end are those whose success is the result of steady accretion. That intellectuality is more vigorous that has attained its strength gradually. It is the man who carefully advances step by step, with his mind becoming wider and wider,—and progressively better able to grasp any theme or situation,—persevering in what he knows to be practical, and concentrating his thought upon it, who is bound to succeed in the greatest degree.

YOUNG AMERICAN GEESE

"If a man is not bound down, he is sure to succeed. He may be bound down by environment, or by doting parental petting. In Paris, they fatten geese to create a diseased condition of the liver. A man stands with a box of very finely prepared and very rich food beside a revolving stand, and, as it revolves, one goose after another passes before him. Taking the first goose by the neck, he clamps down its throat a large lump of the food, whether the goose will or no, until its crop is well stuffed out, and then he proceeds with the rest in the same very mechanical manner. Now, I think, if those geese had to work hard for their own food, they would digest it better, and be far healthier geese. How many young American geese are stuffed in about the same manner at college and at home, by their rich and fond parents!"

UNHELPFUL READING

"Did everything you ever studied help you to attain success?"

"On the contrary, I did not begin real study until I was over sixteen. Until that time, my principal study was—reading novels." He

laughed heartily at my evident astonishment. "They did not help me in the least, for they did not give me an insight into real life. It is only those things that give one a grasp of practical affairs that are helpful. To read novels continuously is like reading fairy stories or "Arabian Nights" tales. It is a butterfly existence, so long as it lasts; but, some day, one is called to stern reality, unprepared."

INVENTIONS IN AMERICA

"You have had experience in life in Europe and in America. Do you think the chances for success are the same in Europe as in America?"

"It is harder to attain success in Europe. There is hardly the same appreciation of progress there is here. Appreciation is an element of success. Encouragement is needed. My thoughts run mostly toward inventions. In England, people are conservative. They are well contented with the old, and do not readily adopt new ideas. Americans more quickly appreciate new inventions. Take an invention to an Englishman or a Scot, and he will ask you all about it, and then say your invention may be all right, but let somebody else try it first.

Take the same invention to an American, and if it is intelligently explained, he is generally quick to see the feasibility of it. America is an inspiration to inventors. It is quicker to adopt advanced ideas than England or Europe. The most valuable inventions of this century have been made in America."

THE ORIENT

"Do you think there is a chance for Americans in the Orient?"

"There is only a chance for capital in trade. American labor cannot compete with Japanese and Chinese. A Japanese coolie, for the hardest kind of work, receives the equivalent of six cents a day; and the whole family, father, mother and children, work and contribute to the common good. A foreigner is only made use of until they have absorbed all his useful ideas; then he is avoided. The Japanese are ahead of us in many things."

ENVIRONMENT AND HEREDITY

"Do you think environment and heredity count in success?"

"Environment, certainly; heredity, not so distinctly. In heredity, a man may stamp out

the faults he has inherited. There is no chance for the proper working of heredity. If selection could be carried out, a man might owe much to heredity. But as it is, only opposites marry. Blonde and light-complexioned people marry brunettes, and the tall marry the short. In our scientific societies, men only are admitted. If women who were interested especially in any science were allowed to affiliate with the men in these societies, we might hope to see some wonderful workings of the laws of heredity. A man, as a general rule, owes very little to what he is born with. A man is what he makes of himself.

" Environment counts for a great deal. A man's particular idea may have no chance for growth or encouragement in his community. Real success is denied that man, until he finds a proper environment.

America is a good environment for young men. It breathes the very spirit of success. I noticed at once, when I first came to this country, how the people were all striving for success, and helping others to attain success. It is an inspiration you cannot help feeling. AMERICA IS THE LAND OF SUCCESS."

PROFESSOR BELL'S LIFE STORY

Alexander Graham Bell was born in Edinburgh, Scotland, March 3, 1847. His father, Alexander Melville Bell, now in Washington, D. C., was a distinguished Scottish educator, and the inventor of a system of "visible speech," which he has successfully taught to deaf-mutes. His grandfather, Alexander Bell, became well known by the invention of a method of removing impediments of speech.

The younger Bell received his education at the Edinburgh High School and University; and, in 1867, he entered the University of London. Then, in his twenty-third year, his health failing from over-study, he came with his father to Canada, as he expressed it, "to die." Later, he settled in the United States, becoming first a teacher of deaf-mutes, and subsequently professor of vocal physiology in Boston University. In 1867, he first began to study the problem of conveying articulate sound by electric currents; which he pursued during his leisure time. After nine long years of research and experiment, he completed the first telephone, early in 1876, when it was exhibited at the Centennial Exposition, and pronounced the "wonder of

wonders in electric telegraphy." This was the judgment of scientific men who were in a position to judge, and not of the world at large. People regarded it only as a novelty, as a curious scientific toy; and most business men doubted that it would ever prove a useful factor in the daily life of the world, and the untold blessing to mankind it has since become. All this skepticism he had to overcome. "A new art was to be taught to the world, a new industry created, business and social methods revolutionized."

"I WILL MAKE THE WORLD HEAR IT"

"It does speak," cried Sir William Thompson, with fervid enthusiasm; and Bell's father-in-law added: "I will make the world hear it." In less than a quarter of a century, it is conveying thought in every civilized tongue; Japan being the first country outside of the United States to adopt it. In the first eight years of its existence, the Bell Telephone Company declared dividends to the extent of $4,000,000; and the great sums of money the company earns for its stockholders is a subject of current comment and wonder. Some fierce contests have been waged over the priority of his invention,

but Mr. Bell has been triumphant in every case.

He has become very wealthy from his invention. He has a beautiful winter residence in Washington; fitted up with a laboratory, and all sorts of electrical conveniences mostly of his own invention. His summer residence is at Cambridge, Massachusetts.

His wife, Mabel, the daughter of the late Gardiner G. Hubbard, is a deaf-mute, of whose education he had charge when she was a child.

Mr. Bell, with one of his beautiful daughters, recently made a visit to Japan. The Order of the Rising Star, the highest order in the gift of the Japanese Emperor, was bestowed upon him. He is greatly impressed by the character of the people; believing them capable of much greater advancement.

Mr. Bell is the inventor of the photophone, aiming to transmit speech by a vibratory beam of light. He has given much time and study to problems of multiplex telegraphy, and to efforts to record speech by photographing the vibrations of a jet of water.

Few inventors have derived as much satisfaction and happiness from their achievements as Mr. Bell. In this respect, his success has

been ideal, and in impressive contrast with the experience of Charles Goodyear, the man who made india-rubber useful, and of some other well-known inventors, whose services to mankind brought no substantial reward to themselves.

Mr. Bell is in nowise spoiled by his good fortune; but is the same unpretending person today, that he was before the telephone made him wealthy and famous.

III

Why the American People Like Helen Gould

MISS HELEN GOULD has won a place for herself in the hearts of Americans such as few people of great wealth ever gain. Her strong character, commonsense, and high ideals, have made her respected by all, while her munificence and kindness have won for her the love of many.

Upon my arrival at her Tarrytown home, I was made to feel that I was welcome, and everyone who enters her presence feels the same. The grand mansion, standing high on the hills overlooking the Hudson, has a home-like appearance. Chickens play around the little stone cottage at the grand entrance, and the grounds are not unlike those of any other country house, with trees in abundance, and beautiful lawns. There are large beds of flowers, and in the gardens all the summer vegetables were growing.

Miss Gould takes a very great interest in her famous greenhouses, the gardens, the flowers, and the chickens, for she is a home-loving woman. It is a common thing to see her in the grounds, digging and raking and planting, like some farmer's girl. That is one reason why her neighbors all like her; she seems so unconscious of her wealth and station.

A FACE FULL OF CHARACTER

When I entered Lyndhurst, she came forward to meet me in the pleasantest way imaginable. Her face is not exactly beautiful, but has a great deal of character written upon it, and it is very attractive. She held out her hand for me to shake in the good old-fashioned way, and then we sat down in the wide hall to talk. Miss Gould was dressed very simply. Her gown was of dark cloth, close-fitting, and her skirt hung several inches above the ground, for she is a believer in short skirts for walking. Her entire costume was very becoming. She never over-dresses, and her garments are neat, and naturally of excellent quality.

HER AMBITIONS AND AIMS

In the conversation that followed, I was permitted to learn much of her ambitions and

aims. She is ambitious to leave an impression on the world by good deeds well done, and this ambition is gratified to the utmost. She is modest about her work.

" I cannot find that I am doing much at all, " she said, " when there is so very much to be done. I suppose I shouldn't expect to be able to do everything, but I sometimes feel that I want to, nevertheless. "

A MOST CHARMING CHARITY

One of her most charming charities is " Woody Crest, " two miles from Lyndhurst, a haven of delight where some twoscore waifs are received at a time for a two weeks' visit.

Years before Miss Gould's name became associated throughout the country with charity, she was doing her part in trying to make a world happier. Every summer she was hostess to scores of poor children, who were guests at one of the two Gould summer homes; little people with pinched, wan faces, and crippled children from the tenements, were taken to that home and entertained. They came in relays, a new company arriving once in two weeks, the number of children thus given a taste of heaven on earth being limited only by the capacity of

the Gould residence. This was her first, and, I am told, her favorite charity.

Little children do things naturally. It was when a child that Helen Gould commenced the work that has given her name a sacred significance. When a little girl, she could see the less fortunate little girls passing the great Gould home on Fifth avenue, and she pitied them and loved them, and from her own allowance administered to their comfort.

"My father always encouraged me in charitable work," she writes a friend. How much the American people owe to that encouragement. A frown from that father, idolized as he was by his daughter, would have frosted and killed that budding philanthropy which has made a great fortune a fountain of joy, and carried sunshine into many lives.

"Woody Crest" is a sylvan paradise, a nobly wooded hill towering above the sumptuous green of Westchester, a place with wild flowers and winding drives, and at its crest a solid mansion built of the native rock. One can look out from its luxuriant lawns to the majestic Hudson, or turn aside into the shadiest of nooks among the trees. What a place for the restful breezes to fan the tired brows from the tene-

ments. Do the little folks enjoy it? Ask them, and their eyes will sparkle with gladness for answer. Ask those, too, who are awaiting their turn in hot New York, and watch the eagerness of their anticipation. For two long and happy weeks they become as joyous as mortals are ever permitted to be.

Miss Gould has a personal oversight of the place, and, by her frequent visits, makes friends with the wee visitors, who look upon her as a combination of angel and fairy godmother. Every day, a wagonette drawn by two horses takes the children, in relays, for long drives into the country. Amusements are provided, and some of those who remain for an entire season at Woody Crest are instructed in different branches. Twice a month some of the older boys set the type for a little magazine which is devoted to Woody Crest matters. There are several portable cottages erected there, one for the sick, one for servants' sleeping rooms, and a third for a laundry.

And the munificent hostess of these children of the needy gets her reward in eyes made bright, in cheeks made ruddy, in the "God bless you," that falls from the lips of grateful parents.

All winter long, instead of closing "Woody Crest" and waiting for the summer sunshine to bring about a return of her charitable opportunities, Miss Gould has kept the place running at full expense. During the winter she herself occupies her town residence. Ordinarily she would not keep "Woody Crest" open longer than Thanksgiving Day, but in the past winter fifteen small boys were entertained for six months. Six of these were cripples, and nine were sound of limb. Though it required many servants, I am told that the little guests were given as much consideration as the same number of grown people would have received. They had nurses and physicians for those who needed them, governesses and instructors for those who were well.

HER PRACTICAL SYMPATHY FOR THE LESS FAVORED

When, one day, I was privileged to meet Miss Gould at Woody Crest, I saw a hundred children scattered around the lawn in front of the stately mansion. It had been an afternoon of labor and anxiety on her part, for she felt the responsibility of entertaining and caring for so many little ones. As she finally cooled herself

on the piazza and looked at her little charges romping around on the lawn, I asked her if she thought any of the little ones before her would ever make their mark in the world.

"That's hard to say," she replied, after a moment's hesitation, "but no one can tell what may be in children until they have grown up and developed. But the hardest thing to me is to see genius struggling under obstacles and in surroundings that would discourage almost anybody. I do not see, for my part, how any child from the poorest tenements could ever grow up and develop into strong, successful men or women. Many of them, of course, have no gifts or endowments to do this, but even if they had, the surroundings are enough to stifle every spark of ambition in them. It is a mystery to me how they can preserve such bright and eager faces. What would we do if we were brought up in such environments! I know I should never be able to survive it, and would never succeed in rising above my surroundings. And it is harder on the girls than the boys! The boys can go forth into the world and probably secure a position which in time will bring them different companionship and surroundings; but the poor girls have so few

opportunities. They must drudge and drag along for the bare necessities of life. My heart aches sometimes for them, and I wish I had the power to lighten the burdens of everyone."

"The hardest thing, I suppose, is to see real ability fighting against odds, with no one to help and encourage?"

"Yes, that seems the worst, and I think we all ought to make it possible for such ones to get a little encouragement and help. When a boy is deserving of credit it should be given unstintedly. It goes a long way toward making him more hopeful for the future. We don't as a rule receive enough encouragement in this world. Certainly not the poor. Everybody seems so busy and intent upon making his own way in the world that he forgets to drop a word of cheer for those who have not been so fortunate by birth or surroundings."[1]

For a number of years, Miss Gould has supported certain beds in the Babies' Shelter, in connection with the Church of the Holy Communion, New York, and the Wayside Day Nursery, near Bellevue Hospital, has always

[1] NOTE.—For four paragraphs preceding I am indebted to GEORGE ETHELBERT WALSH, whose interview was published in the *Boston Transcript,* Oct. 12, 1900.

found in her a good friend. Once a year she makes a tour through the day nurseries of New York, noting the special needs of each, and often sending money or materials for meeting those needs.

PERSONAL ATTENTION TO AN UNSELFISH SERVICE

Her charities, says Mr. Walsh, in the article above cited, are probably the most practical on record. She does not go "slumming," as so many fashionable girls do, but she does go and investigate personal charities herself and apply the medicine as she thinks best. She puts herself out in more ways to relieve distress around than she would to accommodate her wealthiest friend. Not only has she always pitied the sufferers in the world less fortunate than herself, but she has always had a great desire to help those struggling for a living in practical ways to get along. It is this side of her noble work that stands out most conspicuously to-day. The public realizes for the first time that this young woman, who first came into actual fame at the time of our war with Spain, has been supporting and encouraging young people in different parts of the country for years past. These pro-

téges are all worthy of her patronage, and *they have been sought out by her. Not one has ever approached Miss Gould for help, and in fact such an introduction would undoubtedly operate against her inclination to help them. She has discovered them;* and then through considerable tact and discretion obtained from them their ambitious desires and hopes. Through equally good tact and sense she has then placed them in positions where they could work out their own destinies without feeling that they were accepting charity. This is distinctly what Miss Gould wishes to avoid in helping her little protéges. She does not offer them charity or do anything to make them dependent upon her if it can be helped. By her money and influence she obtains for them positions which will give them every chance in the world to rise and develop talents which she thinks she has discovered in them.

Some of her protéges, continues Mr. Walsh, have been sent away to schools and colleges. One of the easiest ways to accomplish this is to offer a scholarship in some institution and then place her young protége in such a position that he or she can win it, and in this way have four years of tuition free. Fully a dozen different

scholars are now enjoying the benefits of Miss Gould's kindness in this and other respects. Four others have been enabled to attend art schools, and two are studying music under the best teachers through the instrumentality of this young woman. Two of these scholars were literally rescued from the tenement dregs of New York, and they showed such aptitude for study and work that Miss Gould undertook to give them a fair start in the world. Unusual aptitude, brightness, or kindness on the part of children always attract Miss Gould, and she has become the patron saint of more than a hundred. When her name is mentioned they show their interest and concern, not by looks of awe and fear but of eagerness and happiness. Those of their number who have been lifted from their low estate and put in high positions to carve out a life of success through their common patron saint, bring back stories of her kindness and consideration that make the children look upon her as they would the Madonna. But she is a youthful Madonna, and the very idea of posing as such, even before the poor and ignorant of her little friends, would amuse her. Nevertheless, that is the nearest that one can interpret their ideas concerning her.

Miss Gould's beneficiaries have been sometimes aided in obtaining the most advanced schooling in the land; and she visits with equal interest the industrial classes of Berea and the favored students of the College Beautiful.

HER VIEWS UPON EDUCATION

Miss Gould is well educated, and a graduate of a law school. I tried to ascertain her views regarding the education of young women of to-day, and what careers they should follow. This is one of her particular hobbies, and many are the young girls she has helped to attain to a better and more satisfactory life.

"I believe most earnestly in education for women," she said; "not necessarily the higher education about which we hear so much, but a good, common-school education. As the years pass, girls are obliged to make their own way in the world more and more; and to do so, they must have good schooling."

"And what particular career do you think most desirable for young women?"

"Oh, as to careers, there are many that young women follow, nowadays. I think, if I had my own way to make, I should fit myself to be a private secretary. That is a position

which attracts nearly every young woman; but, to fill it, she must study hard and learn, and then work hard to keep the place. Then there are openings for young women in the fields of legitimate business. Women know as much about money affairs as men, only most of them have not had much experience. In that field, there are hundreds of things that a woman can do.

THE EVIL OF IDLENESS

"But I don't think it matters much what a girl does so long as she is active, and doesn't allow herself to stagnate. There's nothing, to my mind, so pathetic as a girl who thinks she can't do anything, and is of no use to the world."

HER PATRIOTISM

The late Admiral Philip, he of the "Texas" in the Santiago fight, regarded Miss Gould as an angel, and the sailors of the Brooklyn navy yard fairly worship her. A hustling Y. M. C. A. chap, Frank Smith by name, started a little club-house for "Jack Ashore," near the Brooklyn navy yard. Miss Gould heard of this club, and visited it. At a glance she grasped the meaning, and, on her return home she wrote a

letter and a check for fifty thousand dollars, and there sprang from that letter and check, a handsome building in which there are sixty beds, a library, a pipe organ, a smoking-room, and a restaurant. Do you wonder that the "Jackies" adore her, and that the gale that sweeps over the ship out in the open sea is often freighted with the melody of her name?

"When I visited Cuba and Porto Rico," says Congressman Charles B. Landis, of Indiana, — to whom I am greatly indebted in preparing this article,—"I talked with officers and privates everywhere along the journey, visited camps and hospitals in cities and isolated towns, and everywhere it seemed that the sickness and suffering and heart yearning of the American soldier had been anticipated by Helen Gould. Voices that quivered and eyes that moistened at the mention of the name of this young American girl were one continuous tribute to her heart and work. She cannot fully realize how far-reaching have been her efforts."

A business man looks for results. What impressed me most with Miss Gould's work was the visible, tangible results. Every dollar spent by her seemed to go, straight as a cannon-ball, to some mark. Miss Gould has a business head,

and is not hysterical in her work. She gives, but follows the gift and sees that it goes to the spot. She has studied results and knows which charity pays a premium in smiles, and tears, and joy, and better life, and very little of her money will be wasted in impracticable schemes. She has a happy faculty of getting in actual touch with conditions, realizing that she cannot hit an object near at hand by aiming at a star.

Miss Gould's practical business sense was beautifully exemplified at Montauk Point. Hundreds of soldiers from the hospitals in Cuba and Porto Rico were suddenly unloaded there. Elsewhere were government supplies — tents and cots and rations,—but there the sick soldiers were without shelter, were hungry, had no medicine, and were sleeping on the ground.

Why? Because of red tape. This young lady appeared in person and amazed the strutters in shoulder-straps and the slaves to discipline by having the sick soldier boys made comfortable on army cots, placed in army tents, and fed on army rations,—and this, too, without any "requisition." She grasped a situation, cut the ropes of theory and introduced practice. From her own purse she provided nurses and dainties, and bundled up scores of soldier boys

and sent them to her beautiful villa on the Hudson.

The camp rang with this refrain: —

> You're the angel of the camp,
> Helen Gould,
> In the sun-rays, in the damp,
> On the weary, weary tramp,
> To our darkness you're a lamp,
> Helen Gould.
>
> Thoughts of home and gentle things,
> Helen Gould,
> To the camp your coming brings;
> All the place with music rings
> At the rustle of your wings,
> Helen Gould.

"OUR HELEN"

On the day of the Dewey parade in New York, Miss Gould was in front of her house, on a platform she had erected for the small children of certain Asylums. Mayor Van Wyck told Admiral Dewey who she was, and the Admiral stood up in his carriage and bowed to her three times. Then the word went down the line that Miss Gould was there, and every company saluted her as it passed.

But it was when a body of young recruits stopped for a moment before her door that the real excitement began.

" She shan't marry a foreign prince, " they cried, tossing their hats and stamping their feet. " She's Helen, our Helen, and she shall not marry a foreign prince. "

" AMERICA "

Miss Gould's patriotism is very real and intense, and is not confined to times of war. Two years ago, she caused fifty thousand copies of the national hymn, " America, " to be printed and distributed among the pupils of the public schools of New York.

" I believe every one should know that hymn and sing it, " she declared, " if he sings no other. I would like to have the children sing it into their very souls, till it becomes a part of them. "

She strongly favors patriotic services in the churches on the Sunday preceding the Fourth of July, when she would like to hear such airs as " America, " " Hail Columbia, " and " The Star Spangled Banner, " and see the sacred edifices draped in red, white, and blue.

UNHERALDED BENEFACTIONS

Miss Gould has a strong prejudice against letting her many gifts and charities be known,

and even her dearest friends never know "what Helen's doing now." Of course, her great public charities, as when she gives a hundred thousand dollars at a time, are heralded. Her recent gift of that sum to the government, for national defense, has made her name beloved throughout the land; but, had she been able, she would have kept that secret also.

The place Helen Gould now holds in the love and esteem of the republic exemplifies how quickly the nation's heart responds to the touch of gentleness, and how easy it is for wealth to conquer and rise triumphant, if only it be seasoned with common sense and sympathy.

I will not attempt to specify the numerous projects of charity that have been given life and vigor by Miss Gould. I know her gifts in recent years have passed the million-dollar mark.

"It seems so easy to do things for others," said Miss Gould, recently. It is easy to do good, if the doing is natural and without thought of self-glorification.

Miss Gould's views upon "How to Make the Most of Wealth," are well set forth in her admirable letter to Dr. Louis Klopsch, as published in the *Christian Herald*:—

"The Christian idea that wealth is a steward-

ship, or trust, and not to be used for one's personal pleasure alone, but for the welfare of others, certainly seems the noblest; and those who have more money or broader culture owe a debt to those who have had fewer opportunities.

"And there are so many ways one can help. Children, the sick and the aged especially, have claims on our attention, and the forms of work for them are numerous; from kindergartens, day-nurseries and industrial schools, to 'homes' and hospitals. Our institutions for higher education require gifts in order to do their best work, for the tuition fees do not cover the expense of the advantages offered; and certainly such societies as those in our churches, and the Young Woman's Christian Association and the Young Men's Christian Association, deserve our hearty cooperation. The earnest workers who so nobly and lovingly give their lives to promote the welfare of others, give far more than though they had simply made gifts of money, so those who cannot afford to give largely need not feel discouraged on that account. After all, sympathy and good-will may be a greater force than wealth, and we can all extend to others a kindly feeling and courteous

consideration, that will make life sweeter and better.

" Sometimes it seems to me we do not sufficiently realize the good that is done by money that is used in the different industries in giving employment to great numbers of people under the direction of clever men and women; and surely it takes more ability, perseverance and time to successfully manage such an enterprise than to merely make gifts. "

HER PERSONALITY

Miss Gould's life at Tarrytown is an ideal one. She runs down to the city at frequent intervals, to attend to business affairs; but she lives at Lyndhurst. She entertains but few visitors, and in turn visits but seldom. The management of her property, to which she gives close attention, makes no inconsiderable call upon her time. " I have no time for society, " she said, " and indeed I do not care for it at all; it is very well for those who like it. "

Would you have an idea of her personality? " If so, " replies Landis, " you will think of a good young woman in your own town, who loves her parents and her home; who is devoted to the church; who thinks of the poor on

Thanksgiving Day and Christmas; whose face is bright and manner unaffected; whose dress is elegant in its simplicity; who takes an interest in all things, from politics to religion; whom children love and day-laborers greet by reverently lifting the hat; and who, if she were graduated from a home seminary or college, would receive a bouquet from every boy in town. If you can think of such a young woman, and nearly every community has one (and ninety-nine times out of a hundred she is poor), you have a fair idea of the impression made on a plain man from a country town by Miss Gould."

Helen Miller Gould is just at the threshold of her beautiful career. What a promise is there in her life and work for the coming century?

She has pledged a Hall of Fame for the campus of the New York University, overlooking the Harlem river. It will have tablets for the names of fifty distinguished Americans; and proud will be the descendants of those whose names are inscribed thereon.

The human heart is the tablet upon which Miss Gould has inscribed her name, and her "Hall of Fame" is as broad and high as the republic itself.

IV

Philip D. Armour's Business Career

I MET Mr. Armour in the quiet of the Armour Institute, his great philanthropic school for young men and women. He was very courteous, and there was no delay. He took my hand with a firm grasp—reading with his steady gaze such of my characteristics as interested him,—and saying, at the same time, " Well, sir."

In stating my desire to learn such lessons from his business career as might be helpful to young men, I inquired whether the average American boy of to-day has equally *as good a chance to succeed in the world* as he had, when he began life.

" Every bit and better. The affairs of life are larger. There are greater things to do. There was never before such a demand for able men. "

" Were the conditions surrounding your youth especially difficult? "

"No. They were those common to every small New York town in 1832. I was born at Stockbridge, in Madison county. Our family had its roots in Scotland. My father's ancestors were the Robertsons, Watsons, and McGregors of Scotland; my mother came of the Puritans, who settled in Connecticut."

"Dr. Gunsaulus says," I ventured, "that *all these streams of heredity set toward business affairs.*"

"Perhaps so. I like trading well. My father was reasonably prosperous and independent for those times. My mother had been a school-teacher. There were six boys, and of course such a household had to be managed with the strictest economy in those days. My mother thought it her duty to bring to our home some of the rigid discipline of the school-room. We were all trained to work together, and everything was done as systematically as possible."

"Had you access to any books?"

"Yes, the Bible, 'Pilgrim's Progress,' and a History of the United States."

It is said of the latter, by those closest to Mr. Armour, that it was as full of shouting Americanism as anything ever written, and that Mr. Armour's whole nature is yet colored by its

stout American prejudices; also that it was read and re-read by the Armour children, though of this the great merchant did not speak.

"Were you always of *a robust constitution?*" I asked.

"Yes, sir. All our boys were. We were stout enough to be bathed in an ice-cold spring, out of doors, when at home. There were no bath tubs and warm water arrangements in those days. We had to be strong. My father was a stern Scotchman, and when he laid his plans they were carried out. When he set us boys to work, we worked. It was our mother who insisted on keeping us all at school, and who looked after our educational needs; while our father saw to it that we had plenty of good, hard work on the farm."

"How did you enjoy that sort of life?" I asked.

"Well enough, but not much more than any boy does. Boys are always more or less afraid of hard work."

The truth is, I have heard, but not from Mr. Armour, that when he attended the district school, he was as full of pranks and capers as the best; and that he traded jack-knives in summer and bob-sleds in winter. Young Ar-

mour was often to be found, in the winter, coasting down the long hill near the schoolhouse. Later, he had a brief term of schooling at the Cazenovia Seminary.

FOOTING IT TO CALIFORNIA

"When did you leave the farm for a mercantile life?" I asked.

"I was a clerk in a store in Stockbridge for two years, after I was seventeen, but was engaged with the farm more or less, and wanted to get out of that life. I was a little over seventeen years old when the California gold excitement of 1849 reached our town. Wonderful tales were told of gold already found, and the prospects for more on the Pacific coast. I brooded over the difference between tossing hay in the hot sun and digging up gold by handfuls, until one day I threw down my pitchfork and went over to the house and told mother that I had quit that kind of work.

"People with plenty of money could sail around Cape Horn in those days, but I had no money to spare, and so decided to walk across the country. That is, we were carried part of the way by rail and walked the rest. I per-

suaded one of the neighbor's boys, Calvin Gilbert, to go along with me, and we started.

" I provided myself with an old carpet sack into which to put my clothes. I bought a new pair of boots, and when we had gone as far as we could on canals and wagons, I bought two oxen. With these we managed for awhile, but eventually reached California afoot."

Young Armour suffered a severe illness on the journey, and was nursed by his companion Gilbert, who gathered herbs and steeped them for his friend's use, and once rode thirty miles in the rain to get a doctor. When they reached California, he fell in with Edward Croarkin, a miner, who nursed him back to health. The manner in which he remembered these men gives keen satisfaction to the friends of the great merchant.

" Did you have any money when you arrived at the gold-fields ? "

" Scarcely any. I struck right out, though, and found a place where I could dig, and I struck pay dirt in a little time."

" Did you work entirely alone ? "

" No. It was not long before I met Mr. Croarkin at a little mining camp called Virginia.

He had the next claim to mine, and we became partners. After a little while, he went away, but came back in a year. We then bought in together. The way we ran things was 'turn about.' Croarkin would cook one week, and I the next, and then we would have a clean-up every Sunday morning. We baked our own bread, and kept a few hens, which kept us supplied with eggs. There was a man named Chapin who had a little store in the village, and we would take our gold dust there and trade it for groceries."

THE DITCH

"Did you discover much gold?" I asked.

"Oh, I worked with pretty good success,—nothing startling. *I didn't waste much, and tried to live carefully.* I also *studied the business opportunities* around, and persuaded some of my friends to join me in buying and developing a 'ditch,'—a kind of aqueduct, to convey water to diggers and washers. That proved more profitable than digging for gold, and at the end of the year, the others sold out to me, took their earnings and went home. I stayed, and bought up several other water-powers, until, in 1856, I thought I had enough, and so I sold out and came East."

"How much had you made, altogether?"

"About four thousand dollars."

This was when Mr. Armour was twenty-four years old,—his capital for beginning to do business.

HE ENTERS THE GRAIN MARKET

"Did you return to Stockbridge?"

"A little while, but my ambition set in another direction. I had been studying the methods then used for moving the vast and growing food products of the West, such as grain and cattle, and I believed that I could improve them and make money. The idea and the field interested me and I decided to enter it.

"My standing was good, and I raised the money, and bought what was then the largest elevator in Milwaukee. This put me in contact with the movement of grain. At that time, John Plankington had been established in Milwaukee a number of years, and, in partnership with Frederick Layton, had built up a good pork-packing concern. I bought in with those gentlemen, and so came in contact with the work I liked. One of my brothers, Herman, had established himself in Chicago some time before, in the grain-commission business. I got

him to turn that over to the care of another brother, Joseph, so that he might go to New York as a member of the new firm, of which I was a partner. It was important that the Milwaukee and Chicago houses should be able to ship to a house of their own in New York,—that is, to themselves. Risks were avoided in this way, and we were certain of obtaining all that the ever-changing markets could offer us."

"When did you begin to build up your Chicago interests?"

"They were really begun, before the war, by my brother Herman. When he went to New York for us, we began adding a small packing-house to the Chicago commission branch. It gradually grew with the growth of the West."

MR. ARMOUR'S ACUTE PERCEPTION OF THE COMMERCIAL CONDITIONS FOR BUILDING UP A GREAT BUSINESS

"Is there any one thing that accounts for the immense growth of the packing industry here?" I asked.

"System and the growth of the West did it. Things were changing at startling rates in those days. The West was growing fast. Its great areas of production offered good profits to men

who would handle and ship the products. Railway lines were reaching out in new directions, or increasing their capacities and lowering their rates of transportation. These changes and the growth of the country made the creation of a food-gathering and delivering system necessary. Other things helped. At that time (1863), a great many could see that the war was going to terminate favorably for the Union. Farming operations had been enlarged by the war demand and war prices. The state banking system had been done away with, and we had a uniform currency, available everywhere, so that exchanges between the East and the West had become greatly simplified. Nothing more was needed than a steady watchfulness of the markets by competent men in continuous telegraphic communication with each other, and who knew the legitimate demand and supply, in order to sell all products quickly and with profit."

SYSTEM AND GOOD MEASURE

"Do you believe that system does so much?" I ventured.

"System and good measure. *Give a measure heaped full and running over, and success is*

certain. That is what it means to be the intelligent servants of a great public need. We believed in thoughtfully adopting every attainable improvement, mechanical or otherwise, in the methods and appliances for handling every pound of grain or flesh. Right liberality and right economy will do everything where a public need is being served. Then, too, our

METHODS

improved all the time. There was a time when many parts of cattle were wasted, and the health of the city injured by the refuse. Now, by adopting the best known methods, nothing is wasted; and buttons, fertilizers, glue and other things are made cheaper and better for the world in general, out of material that was before a waste and a menace. I believe in finding out the truth about all things—the very latest truth or discovery,—and applying it."

"You attribute nothing to good fortune?"

"Nothing!" Certainly the word came well from a man whose energy, integrity, and business ability made more money out of a ditch than other men were making out of rich placers in the gold region.

THE TURNING POINT

"May I ask what you consider the turning-point of your career?"

"The time when I began to save the money I earned at the gold-fields."

TRUTH

"What trait do you consider most essential in young men?"

"Truth. Let them get that. Young men talk about getting capital to work with. Let them get truth on board, and capital follows. It's easy enough to get that."

A GREAT ORATOR, AND A GREAT CHARITY

"Did you always desire to follow a commercial, rather than a professional life?"

"Not always. I have no talent in any other direction; but I should have liked to be a great orator."

Mr. Armour would say no more on this subject, but his admiration for oratory has been demonstrated in a remarkable way.

It was after a Sunday morning discourse by the splendid orator, Dr. Gunsaulus, at Plymouth

Church, Chicago, in which the latter had set forth his views on the subject of educating children, that Mr. Armour came forward and said:—

"You believe in those ideas of yours, do you?"

"I certainly do," said Dr. Gunsaulus.

"And would you carry them out if you had the opportunity?"

"I would."

"Well, sir," said Mr. Armour, "if you will give me five years of your time, I will give you the money."

"But to carry out my ideas would take a million dollars!" exclaimed Gunsaulus.

"I have made a little money in my time," returned Mr. Armour. And so the famous Armour Institute of Technology, to which its founder has already given sums aggregating $2,800,000, was associated with Mr. Armour's love of oratory.

One of his lieutenants says that Gerritt Smith, the old abolitionist, was Armour's boyhood's hero, and that to-day Mr. Armour will go far to hear a good speaker, often remarking that he would have preferred to be a great orator rather than a great capitalist.

EASE IN HIS WORK

"There is no need to ask you," I continued, "whether you believe in constant, hard labor?"

"I should not call it hard. I believe in close application, of course, while laboring. Overwork is not necessary to success. Every man should have plenty of rest. I have."

"You must rise early to be at your office at half past seven?"

"Yes, but I go to bed early. I am not burning the candle at both ends."

The enormous energy of this man, who is too modest to discuss it, is displayed in the most normal manner. Though he sits all day at a desk which has direct cable connection with London, Liverpool, Calcutta, and other great centers of trade, with which he is in constant connection,—though he has at his hand long-distance telephone connection with New York, New Orleans, and San Francisco, and direct wires from his room to almost all parts of the world, conveying messages in short sentences upon subjects which involve the moving of vast amounts of stock and cereals, and the exchange of millions in money, he is not, seemingly, an overworked man. The great subjects to which

he gives calm, undivided attention from early morning until evening, are laid aside with the ease with which one doffs his raiment, and outside of his office the cares weigh upon him no more. His mind takes up new and simpler things.

"What do you do," I inquired, "after your hard day's work,—think about it?"

"Not at all. I drive, take up home subjects, and never think of the office until I return to it."

"Your sleep is never disturbed?"

"Not at all."

A BUSINESS KING

And yet the business which this man forgets, when he gathers children about him and moves in his simple home circle, amounts in one year, to over $100,000,000 worth of food products, manufactured and distributed; the hogs killed, 1,750,000; the cattle, 1,080,000; the sheep, 625,000. Eleven thousand men are constantly employed, and the wages paid them are over $5,500,000; the railway cars owned and moving about all parts of the country, four thousand; the wagons of many kinds and of large number, drawn by seven hundred and fifty horses. The glue factory, employing seven hundred and fifty

hands, makes over twelve million pounds of glue. In his private office, it is he who takes care of all the general affairs of this immense world of industry, and yet at half-past four he is done, and the whole subject is comfortably off his mind.

TRAINING YOUTH FOR BUSINESS

"Do you believe in inherited abilities, or that any boy can be taught and trained, and made a great and able man?"

"I recognize inherited ability. Some people have it, and only in a certain direction; but I think men can be taught and trained so that they become much better and more useful than they would be, otherwise. Some boys require more training and teaching than others. There is prosperity for everyone, according to his ability."

"What would you do with those who are naturally less competent than others?"

"Train them, and give them work according to their ability. I believe that life is all right, and that this difference which nature makes is all right. Everything is good, and is coming out satisfactorily, and we ought to make the most of conditions, and try to use and improve

everything. The work needed is here, and everyone should set about doing it."

When asked if he thought the chances for young men as good to-day as they were when he was young. "Yes," he said, "I think so. The world is changing every day and new fields are constantly opening. We have new ideas, new inventions, new methods of manufacture, and new ways to-day everywhere. There is plenty of room for any man who can do anything well. The electrical field is a wonderful one. There are other things equally good, and the right man is never at a loss for an opportunity. Provided he has some ability and good sense to start with, is thrifty, honest and economical, there is no reason why any young man should not accumulate money and attain so called success in life."

When asked to what qualities he attributed his own success, Mr. Armour said: "I think that thrift and economy had much to do with it. I owe much to my mother's training and to a good line of Scotch ancestors, who have always been thrifty and economical. As to my business education, I never had any. I am, in fact, a good deal like Topsy, 'I just growed.'

My success has been largely a matter of organization.

"I have always made it a point to surround myself with good men. I take them when they are young and keep them just as long as I can. Nearly all of the men I now have, have grown up with me. Many of them have worked with me for twenty years. They have started in at low wages, and have been advanced until they have reached the highest positions." Mr. Armour thinks that most men who accumulate a large amount of money, inherited the money-making instinct. The power of making and accumulating money, he says, is as much a natural gift as are those of a singer or an artist. "The germs of the power to make money must be in the mind. Take, for instance, the people we have working with us. I can get millions of good bookkeepers or accountants, but not more than one out of five hundred in all of those I have employed has made a great success as an organizer or trader."

Mr. Armour is a great believer in young men and young brains. He never discharges a man if he can possibly avoid it. If the man is not doing good work where he is, he puts him in some other department, but never discharges

him if he can find him other work. He will not, however, tolerate intemperance, laziness or getting into debt. Some time ago a policeman entered his office. In answer to Mr. Armour's question, "What do you want here?" he replied: "I want to garnishee one of your men's wages for debt." "Indeed," said Mr. Armour, "and who is the man?" Asking the officer into his private room he sent for the debtor. "How long have you been in debt?" asked Mr. Armour. The clerk replied that he had been behind for twenty years and could not seem to catch up. "But you get a good salary, don't you?" "Yes, but I can't get out of debt." "But you must get out, or you must leave here," said Mr. Armour. "How much do you owe?" The clerk then gave the amount, which was less than a thousand dollars. "Well," said Mr. Armour, handing him a check, "there is enough to pay all your debts, and if I hear of you again getting into debt, you will have to leave." The clerk paid his debts and remodeled his life on a cash basis.

PROMPT TO ACT

In illustration of Mr. Armour's aptitude for doing business, and his energy, it is related that

when, in 1893, local forces planned to defeat him in the grain market, and everyone was crying that at last the great Goliath had met his David, he was all energy. He had ordered immense quantities of wheat. The opposition had shrewdly secured every available place of storage, and rejoiced that the great packer, having no place to store his property, would suffer immense loss, and must capitulate. He foresaw the fray and its dangers, and, going over on Goose Island, bought property at any price, and began the construction of immense elevators. The town was placarded with the truth that anyone could get work at Armour's elevators. No one believed they could be done in time, but three shifts of men working night and day, often under the direct supervision of the millionaire, gradually forced the work ahead, and when, on the appointed day, the great grain-ships began to arrive, the opposition realized failure. The vessels began to pour the contents of their immense holds into these granaries, and the fight was over.

FORESIGHT

The foresight that sent him to New York in 1864, to sell pork, brought him back from Eu-

rope in 1893, months before the impending panic was dreamed of by other merchants. It is told of him that he called all his head men to New York, and announced to them:—

"Gentlemen, there's going to be financial trouble soon."

"Why, Mr. Armour," they said, "you must be mistaken. Things were never better. You have been ill, and are suddenly apprehensive."

"Oh, no," he said, "I'm not. There is going to be trouble;" and he gave as his reasons certain conditions which existed in nearly all countries, which none of those present had thought of. "Now," said he to the first of his many lieutenants, "how much will you need to run your department until next year?"

The head man named his need. The others were asked, each in turn, the same question, and, when all were through, he counted up, and, turning to the company, said:—

"Gentlemen, go back and borrow all you need in Chicago, on my credit. Use my name for all it will bring in the way of loans."

FOREARMED AGAINST PANIC

The lieutenants returned, and the name of Armour was strained to its utmost limit. When

all had been borrowed, the financial flurry suddenly loomed up, but it did not worry the great packer. In his vaults were $8,000,000 in gold. All who had loaned him at interest then hurried to his doors, fearing that he also was imperiled. They found him supplied with ready money, and able to compel them to wait until the stipulated time of payment, or to force them to abandon their claims of interest for their money, and so tide him over the unhappy period. It was a master stroke, and made the name of the great packer a power in the world of finance.

SOME SECRETS OF SUCCESS

"Do you consider your financial decisions which you make quickly to be brilliant intuitions?" I asked.

"I never did anything worth doing by accident, nor did anything I have come that way. No, I never decide anything without knowing the conditions of the market, and never begin unless satisfied concerning the conclusion."

"Not everyone could do that," I said.

"I cannot do everything. Every man can do something, and there is plenty to do,—never more than now. The problems to be solved are

greater now than ever before. *Never was there more need of able men. I am looking for trained men all the time.* More money is being offered for them everywhere than formerly."

"Do you consider that *happiness* consists in labor alone?"

"*It consists in doing something for others.* If you give the world better material, better measure, better opportunities for living respectably, there is happiness in that. You cannot give the world anything without labor, and there is no satisfaction in anything but such labor as looks toward doing this, and does it."

V

What Miss Mary E. Proctor Did to Popularize Astronomy

"YOU can never know what your possibilities are," said Miss Proctor, " till you have put yourself to the test. There are many, many women who long to do something, and could succeed, if they would only banish their doubts, and plunge in. For example, I was not at all sure that I could interest audiences with talks on astronomy, but, in 1893, I began, and since then have given between four and five hundred lectures."

Miss Proctor is so busy spreading knowledge of the beauties and marvels of the heavens, that she was at home in New York for only a two days' interval between tours, when she consented to talk to me about her work. This talk showed such enthusiasm and whole-souled devotion to the theme that it is easy to understand Miss Proctor's success as a lecturer, although

she is physically diminutive, and is very domestic in her tastes.

AUDIENCES ARE APPRECIATIVE

"I am always nervous in going before an audience," she said, "but there is so much I want to tell them that I have no time at all to think of myself. I find that if the lecturer is really interested in the subject, those who come to listen usually are; and it is certainly true, as I have learned by going upon the platform, tired out from a long journey, that you cannot expect enthusiasm in your audience, unless you are enthusiastic yourself. But I think that audiences are very responsive and appreciative of intelligent efforts to interest them, and, therefore, I am sure, that if a woman possesses, or can acquire a thorough knowledge of some practical, popular subject, and has enthusiasm and a fair knowledge of human nature, she can attain success on the lecture platform.

"The field is broad, and far from overcrowded, and it yields bountifully to those who are willing to toil and wait. There is Miss Roberts, for instance, who commands large audiences for her lectures on music; and Mrs. Lemcke, who has been remarkably successful

in her practical talks on cooking; and Mary E. Booth, who gives wonderfully instructive and entertaining lectures on the revelations of the microscope; and Miss Very, who takes audiences of children on most delightful and profitable imaginary trips to places of importance.

LECTURES TO CHILDREN

"Children, by the way, are my most satisfactory audiences. Grown-up people never become so absorbed. It is the greatest pleasure of my lecturing to talk to the little tots, and watch them drink it all in. Indeed, I prepared my very first lecture for children, but didn't deliver it. That episode marked the beginning of my career as a lecturer.

"Do you ask me to tell you about it? My father, Richard A. Proctor, wrote, as you know, many books on popular astronomy. When I was a girl I did not read them very carefully; my education at South Kensington, London, following a musical and artistic direction. In fact, I was ambitious to become a painter. But when my father died, in 1888, I found comfort in reading his books all over again; and as he had drilled me to write for his periodical,

'*Knowledge,*' I began to write articles on astronomy for anyone who would accept them. One day, in the spring of 1893, I received a letter from Mrs. Potter Palmer, asking me if I would talk to an audience of children in the Children's Building at the World's Fair. The idea of lecturing was new to me, but I decided that I would try, at any rate, and so I took great pains to prepare a talk that I thought the children would understand, and be interested in. But when I reached the building, I found an audience, not of children, but of men and women. *There was hardly a child in all the assembled five hundred people.* It would never do to give them the childish talk I had prepared, and as it was my first attempt to talk from a platform, you can imagine my state of mind. I was determined, however, that my first effort should not be a fiasco, so I stepped out upon the platform and talked about the things that had most interested me in my father's books and conversations.

A LESSON IN LECTURING

"I have lectured a great many times since then, but my first lecture was the most trying. I am now glad that things happened as they

did, for that experience taught me a valuable lesson. I learned not to commit my talks to memory, but merely to have the topics and facts and general arrangement of the lecture well in mind. By this method, I can change and adapt myself to my audience at any time; and I often have to do this. I am able to feel intuitively whether I have gained my listeners' sympathy and interest, and when I feel that I have not, I immediately take another tack. Another great advantage of not committing what you are going to say to memory, word for word, is the added color and animation and spontaneity which the conversational tone and manner gives the lecture.

THE STEREOPTICON

"My stereopticon pictures of the heavenly bodies are of great help to me. They naturally add much to the interest, and are really a revelation to most of my audiences, for the reason that they show things that can never be seen with the naked eye. How my father would have delighted in them, and how effectively he would have used them. But celestial photography had not been made practical at the time of his death; it is, indeed, quite a new art, al-

though its general principles are very simple. A special lens and photographic plate are adjusted in the telescope, and the plate is exposed as in an ordinary camera, except that the exposure is much longer. It usually continues for about four hours, the greater the length of time the greater being the number of stars that will be seen in the photograph. After the developing, these stars appear as mere specks on the plate. That they are so small is not surprising, for most of them are stars that are never seen by the eye alone. When the photograph is enlarged by the stereopticon, the result is like looking at a considerable portion of the heavens through a powerful telescope.

" The children utter exclamations of delight when they see the pictures,—the children, dear, imaginative little souls, it is my ambition to devote more and more of my time to them, and finally talk and write for them altogether. They are greatly impressed with the new world in the skies which is opened to them, and I like to think that these early impressions will give them an understanding and appreciation of the wonders of astronomy that will always be a pleasure to them.

Miss Mary E. Proctor

"STORIES FROM STAR LAND"

" For the children, my first book, 'Stories From Star-land,' was written. I tried to weave into it poetical and romantic ideas, that appeal to the imaginative mind of the child, and quicken the interest without any sacrifice of accuracy in the facts with which I deal. I wrote the book in a week. The publisher came to me one Saturday, and told me that he would like a children's book on astronomy. I devoted all my days to it till the following Saturday night, and on Monday morning took the completed manuscript to the publishing house. They seemed very much surprised that it should be finished so soon; but as a matter of fact it was not much more than the manual labor of writing out the manuscript that I did in that week. *The little book itself is the result of ten years' thought and study.*

" It is much the same with my lectures. I deliver them in a hasty, conversational tone, and they seem, as one of my listeners told me recently, to be 'just offhand chats.' But in reality I devote a great deal of labor to them, and am constantly adding new facts and new ideas.

CONCENTRATION OF ATTENTION

"I learned very soon after I began my work, that *I must give myself up to it absolutely* if I were to achieve success. There could be no side issues, nothing else to absorb any of my energy, or take any of my thought or time. One of the first things I did was to take a thorough course in singing, for the purpose of acquiring complete control of my voice. I put aside all social functions, of which I am rather fond and have since devoted my days and nights to astronomy,— not that I work at night, except when I lecture; I rest and retire early, so that in the morning I may have the spirit and enthusiasm necessary to do good work.

"*Enthusiasm,* it seems to me, is an important factor in success. It combats discouragement, makes work a pleasure, and sacrifices easier.

"A great many women fail in special fields of endeavor, who might succeed if they were willing to sacrifice something, and would not let the distractions creep in. There is more in a woman's life to divert her attention from a single purpose than in a man's; but if the woman has chosen some line of effort that is worthy to be called life work, and if—refusing to be drawn

aside,—she keeps her eyes steadfastly upon the goal, I believe that she is almost certain to achieve success."

VI

The Boyhood Experience of President Schurman of Cornell University

AT ten years of age, he was a country lad on a backwoods farm on Prince Edward Island.

At thirteen, he had become a clerk in a country store, at a salary of thirty dollars a year.

At eighteen, he was a college student, supporting himself by working in the evenings as a bookkeeper.

At twenty, he had won a scholarship in the University of London, in competition with all other Canadian students.

At twenty-five, he was professor of philosophy, Acadia College, Nova Scotia.

At thirty-eight, he was appointed President of Cornell University.

At forty-four, he was chairman of President

McKinley's special commission to the Philippines.

In this summary is epitomized the career of Jacob Gould Schurman. It is a romance of real life such as is not unfamiliar in America. Mr. Schurman's career differs from that of some other self-made men, however. Instead of heaping up millions upon millions, he has applied his talents to winning the intellectual prizes of life, and has made his way, unaided, to the front rank of the leaders in thought and learning in this country. His career is a source of inspiration to all poor boys who have their own way to make in the world, for he has won his present honors by his own unaided efforts.

President Schurman says of his early life:—

"It is impossible for the boy of to-day, no matter in what part of the country he is brought up, to appreciate the life of Prince Edward Island as it was forty years ago. At that time, it had neither railroads nor daily newspapers, nor any of the dozen other things that are the merest commonplaces nowadays, even to the boys of the country districts. I did not see a railroad until late in my 'teens I was never inside of a theatre until after I was

twenty. The only newspaper that came to my father's house was a little provincial weekly. The only books the house contained were a few standard works,—such as the Bible, Bunyan's 'Pilgrim's Progress,' Fox's 'Book of Martyrs,' and a few others of that class. Remember, too, that this was not back at the beginning of the century, but little more than a generation ago, for I was born in the year 1854.

"My father had cleared away the land on which our house stood. He was a poor man, but no poorer than his neighbors. No amount of land, and no amount of work could yield much more than the necessaries of life in that time and place. There were eight children in our family, and there was work for all of us.

A LONG TRAMP TO SCHOOL

"Our parents were anxious to have their children acquire at least an elementary education; and so, summer and winter, we tramped the mile and a half that lay between our house and the district school, and the snow often fell to the depth of five or six feet on the island, and sometimes, when it was at its worst, our

father would drive us all to school in a big sleigh. But no weather was bad enough to keep us away.

"That would be looked upon as a poor kind of school, nowadays, I suppose. The scholars were of all ages, and everything, from A,-B,-C, to the Rule of Three, was taught by the one teacher. But whatever may have been its deficiencies, the work of the school was thorough. The teacher was an old-fashioned drillmaster, and whatever he drove into our heads he put there to stay. I went to this school until I was thirteen, and by that time I had learned to read and write and spell and figure with considerable accuracy.

"At the age of thirteen, I left home. I had formed no definite plans for the future. I merely wanted to get into a village, and to earn some money.

"My father got me a place in the nearest town,—Summerside,—a village of about one thousand inhabitants. For my first year's work I was to receive thirty dollars and my board. Think of that, young men of to-day! Thirty dollars a year for working from seven in the morning until ten at night! But I was glad to get the place. It was a start in the

world, and the little village was like a city to my country eyes.

HE ALWAYS SUPPORTED HIMSELF

"From the time I began working in the store until to-day, I have always supported myself, and during all the years of my boyhood I never received a penny that I did not earn myself. At the end of my first year, I went to a larger store in the same town, where I was to receive sixty dollars a year and my board. I kept this place for two years, and then I gave it up, against the wishes of my employer, because I had made up my mind that I wanted to get a better education. I determined to go to college.

"I did not know how I was going to do this, except that it must be by my own efforts. I had saved about eighty dollars from my store-keeping, and that was all the money I had in the world." *Out of a hundred and fifty dollars, the only cash he received as his first earnings during three years, young Schurman had saved eighty dollars; this he invested in the beginnings of an education.*

"When I told my employer of my plan, he tried to dissuade me from it. He pointed out the difficulties in the way of my going to

college, and offered to double my pay if I would stay in the store.

THE TURNING-POINT OF HIS LIFE

"That was the turning-point in my life. On one side was the certainty of one hundred and twenty dollars a year, and the prospect of promotion as fast as I deserved it. Remember what one hundred and twenty dollars meant in Prince Edward Island, and to a poor boy who had never possessed such a sum in his life. On the other side was my hope of obtaining an education. I knew that it involved hard work and self-denial, and there was the possibility of failure in the end. But my mind was made up. I would not turn back. I need not say that I do not regret that early decision, although I think that I should have made a successful storekeeper.

"With my eighty dollars capital, I began to attend the village high school, to get my preparation for college. I had only one year to do it in. My money would not last longer than that. I recited in Latin, Greek and algebra, all on the same day, and for the next forty weeks I studied harder than I ever had before or have since. At the end of the year I entered

the competitive examination for a scholarship in Prince of Wales College, at Charlotte Town, on the island. I had small hope of winning it, my preparation had been so hasty and incomplete. But when the result was announced, I found that I had not only won the scholarship from my county, but stood first of all the competitors on the island.

"The scholarship I had won amounted to only sixty dollars a year. It seems little enough, but I can say now, after nearly thirty years, that the winning of it was the greatest success I have ever had. I have had other rewards, which, to most persons, would seem immeasurably greater, but with this difference: that first success was essential; without it I could not have gone on. The others I could have done without, if it had been necessary."

For two years young Schurman attended Prince of Wales College. He lived on his scholarship and what he could earn by keeping books for one of the town storekeepers, spending less than one hundred dollars during the entire college year. Afterwards, he taught a country school for a year, and then went to Acadia College in Nova Scotia to complete his college course.

A SPLENDID COLLEGE RECORD

One of Mr. Schurman's fellow-students in Acadia says that he was remarkable chiefly for taking every prize to which he was eligible. In his senior year, he learned of a scholarship in the University of London, to be competed for by the students of Canadian colleges. The scholarship paid five hundred dollars a year for three years. The young student in Acadia was ambitious to continue his studies in England, and saw in this offer his opportunity. He tried the examination and won the prize.

During the three years in the University of London, Mr. Schurman became deeply interested in the study of philosophy, and decided that he had found in it his life work. He was eager to go to Germany and study under the great leaders of philosophic thought. A way was opened for him, through the offer of the Hibbard Society in London; the prize being a traveling fellowship with two thousand dollars a year. The honor men of the great English universities like Oxford and Cambridge were among the competitors, but the poor country boy from Prince Edward Island was again successful, greatly to the surprise of the others.

At the end of his course in Germany, Mr. Schurman, then a Doctor of Philosophy, returned to Acadia College to become a teacher there. Soon afterwards, he was called to Dalhousie University, at Halifax, Nova Scotia. In 1886, when a chair of philosophy was established at Cornell, President White, who once met the brilliant young Canadian, called him to that position. Two years later, Dr. Schurman became Dean of the Sage School of Philosophy at Cornell; and, in 1892, when the President's chair became vacant, he was placed at the head of the great university. At that time, he was only thirty-eight years of age.

President Schurman is a man of great intellectual power, and an inspiring presence. Though one of the youngest college presidents in the country, he is one of the most successful, and under his leadership Cornell has been very prosperous. He is deeply interested in all the affairs of young men, and especially those who, as he did, must make their own way in the world. He said, the other day:—

"Though I am no longer engaged directly in teaching, I should think my work a failure if I did not feel that my influence on the young men with whom I come in contact is as direct and helpful as that of a teacher could be."

VII

The Story of John Wanamaker

IN a plain two-story dwelling, on the outskirts of Philadelphia, the future merchant prince was born, July 11, 1837. His parents were Americans in humble station; his mother being of that sturdy Pennsylvania Dutch stock which has no parallel except the Scotch for ruggedness. His father, a hard-working man, owned a brickyard in the close vicinity of the family residence. Little John earned his first money, seven big copper cents, by assisting his father. He was too small to do much, but turned the bricks every morning as they lay drying in the summer sun. As he grew older and stronger, the boy was given harder tasks around the brickyard.

He went to school a little, not much, and he assisted his mother in the house a great deal. His father died when John was fourteen, and this changed the whole course of his life. He

abandoned the brickyard and secured a place in a bookstore owned by Barclay Lippincott, on Market Street, Philadelphia, at a salary of one dollar and twenty-five cents a week.

It was a four-mile walk from his home to his place of business. Cheerfully he trudged this distance morning and night; purchasing an apple or a roll each noon for luncheon, and giving his mother all the money that he saved. He used to deny himself every comfort, and the only other money that he ever spent was on books for his mother. This seems to have been the boy's chief source of pleasure at that period. Even to-day, he says of his mother: "Her smile was a bit of heaven, and it never faded out of her face till her dying day." Mrs. Wanamaker lived to see her son famous and wealthy.

HIS CAPITAL AT FOURTEEN

John Wanamaker, the boy, had no single thing in all his surroundings to give him an advantage over any one of hundreds of other boys in the city of Philadelphia. Indeed, there were hundreds and hundreds of other boys of his own age for whom anyone would have felt safe in prophesying a more notable career. His

capital was not in money. Very few boys in all that great city had less money than John Wanamaker, and comparatively few families of average position but were better off in the way of worldly goods. John Wanamaker's capital, that stood him in such good stead in after life, comprised good health, good habits, a clean mind, thrift in money matters, and tireless devotion to whatever he thought to be duty.

People who were well acquainted with John Wanamaker when he was a book publisher's boy, say that he was exceptionally promising as a boy; that he was studious as well as attentive to business. He did not take kindly to rough play, or do much playing of any kind. He was earnest in his work, unusually earnest for a boy. And he was saving of his money.

When, a little later, he went to a Market street clothing house and asked for a place, he had no difficulty in getting it, nor had he any trouble in holding it, and here he could earn twenty-five cents a week more wages.

TOWER HALL CLOTHING STORE

Men who worked with him in the Tower Hall Clothing Store say that he was always bright, willing, accommodating, and very

seldom out of temper. His effort was to be first at the store in the morning, and he was very likely to be one of the last, if not the last, at the store in the evening. If there was an errand, he was always prompt and glad to do it. And so the store people liked him, and the proprietor liked him, and, when he began to sell clothing, the customers liked him. He was considerate of their interests. He did not try to force undesirable goods upon them. He treated them so that when they came again they would be apt to ask, "Where is John?"

HIS AMBITION AND POWER AS AN ORGANIZER AT SIXTEEN

Colonel Bennett, the proprietor of Tower Hall, said of him at this time:—

"John was certainly the most ambitious boy I ever saw. I used to take him to lunch with me, and he used to tell me how he was going to be a great merchant.

"He was very much interested in the temperance cause; and had not been with me long before he persuaded most of the employees in the store to join the temperance society to which he belonged. He was always organizing something. He seemed to be a natural-

born organizer. This faculty is largely accountable for his great success in after life."

THE Y. M. C. A.

Young Wanamaker's religious principles were always at the forefront in whatever he did. His interest in Sunday School work, and his skill as an organizer became well known. And so earnestly did he engage in the work of the Young Men's Christian Association, that he was appointed the first salaried secretary of the Philadelphia branch, at one thousand dollars a year. Never since has a secretary enrolled so many members in the same space of time. He passed seven years in this arduous work.

OAK HALL

He saved his money; and, at twenty-four, formed a partnership with his brother-in-law Nathan Brown, and opened Oak Hall Clothing store, in April, 1861. Their united capital was only $3,500; yet Wanamaker's capital of popular good-will was very great. He was already a great power in the city. I can never forget the impression made upon my mind, after he had been in business but a few months, when I

visited his Bethany Sunday School, established in one of the most unpromising sections of the city, which had become already a factor for good, with one of the largest enrollments in the world. And he was foremost in every form of philanthropic work.

It was because of his great capacity to do business that Wanamaker had been able to "boom" the Young Men's Christian Association work. He knew how to do it. And he could "boom" a Sunday School, or anything else that he took hold of. He had

A HEAD BUILT FOR BUSINESS,

whatever the business might be. And as for Oak Hall, he knew just what to do with it.

The first thing he did was to multiply his working capital by getting the best help obtainable for running the store.

At the very outset, John Wanamaker did what almost any other business man would have stood aghast at. He chose the best man he knew as a salesman in the clothing business in Philadelphia,—the man of the most winning personality who could attract trade,—and agreed to pay him $1,350 for a year,—one-third of the entire capital of the new concern.

It has been a prime principle with this merchant prince not only to deal fairly with his employees, but to make it an object for them to earn money for him and to stand by him. Capacity has been the first demand. *He engaged the very best men to be had.* There are to-day dozens of men in his employ who receive larger salaries than are paid to cabinet ministers. All the employees of the Thirteenth Street store, which he occupied in 1877, participate in *a yearly division of profits. Their share at the end of the first year amounted to* $109,439.68.

HIS RELATION TO CUSTOMERS

A considerable portion of the trade of the new store came from people in the country districts. Mr. Wanamaker had a way of getting close to them and gaining their good will. He understood human nature. He put his customer at ease. He showed interest in the things that interested the farmer. An old employee of the firm says: " John used to put a lot of chestnuts in his pocket along in the fall and winter, and, when he had one of these countrymen in tow, he'd slip a few of the nuts into the visitor's

hand and both would go munching about the store."

Wanamaker was the first to introduce the "one-price system" into the clothing trade. It was the universal rule in those days, in the clothing trade, not to mark the prices plainly on the goods that were for sale. Within rather liberal bounds, the salesman got what he could from the customer. Mr. Wanamaker, after a time, instituted at Oak Hall the plan of "but one price and that plainly marked." In doing this he followed the cue of Stewart, who was the first merchant in the country to introduce it into the dry-goods business.

The great Wanamaker store of 1877 went much further:—

He announced that *those who bought goods of him were to be satisfied with what they bought, or have their money back.*

To the old mercantile houses of the city, this seemed like committing business suicide.

It was, also, unheard-of that special effort should be made to add to the comfort of visitors; to make them welcome whether they cared to buy or not; to induce them to look upon the store as a meeting-place, a rendezvous, a resting-place,—a sort of city home, almost.

was so great that General Grant once remarked to George W. Childs that Wanamaker would have been a great general if his lot had been that of army service.

Wanamaker used to buy goods of Stewart, and the New York merchant remarked to a friend: "If young Wanamaker lives, he will be a greater merchant than I ever was."

Sometime in recent years, since Wanamaker bought the Stewart store, he said to Frank G. Carpenter:—

"A. T. Stewart was a genius. I have been surprised again and again as I have gone through the Broadway and Tenth Street building, to find what a knowledge he had of the needs of a mercantile establishment. Mr. Stewart put up a building which is to-day, I believe, better arranged than any of the modern structures. He seemed to know just what was needed.

"I met him often when I was a young man. I have reason to think that he took a liking to me. One day, I remember, I was in his woolen department buying some stuffs for my store here, when he came up to me and asked if I

would be in the store for fifteen minutes longer. I replied that I would. At the end of fifteen minutes he returned and handed me a slip of paper, saying:—

"'Young man, I understand that you have a mission school in Philadelphia; use that for it.'

"Before I could reply he had left. I looked down at the slip of paper. It was a check for one thousand dollars."

Wanamaker early showed himself the peer of the greatest merchants. He created the combination or department store. He lifted the retail clothing business to a higher plane than it had ever before reached. In ten years from the time he began to do business for himself, he had absorbed the space of forty-five other tenants and become the leading merchant of his native city. Four years later, he had purchased, for $450,000, the freight depot of the Pennsylvania Railroad, covering the entire square where his present great store is located. The firm name became simply John Wanamaker. His lieutenants and business partners therein are his son Thomas B. Wanamaker, and Robert C. Ogden. Their two Philadelphia establishments alone do a business of between

$30,000,000 and $40,000,000 annually. Mr. Wanamaker's private fortune is one of the most substantial in America.

ATTENTION TO DETAILS

Yet in all these years he has been early and late at the store, as he was when a boy. He has always seen to it that customers have prompt and careful attention. He early made the rule that if a sale was missed, a written reason must be rendered by the salesman. There was no hap-hazard business in that store,—nothing of the happy-go-lucky style. Each man must be alert, wide-awake, attentive, or there was no place for him at Oak Hall.

THE MOST RIGID ECONOMY

has been always a part of the system. It is told of him that, in the earlier days of Oak Hall, he used to gather up the short pieces of string that came in on parcels, make them into a bunch, and see that they were used when bundles were to be tied. He also had a habit of smoothing out old newspapers, and seeing that they were used as wrappers for such things as did not require a better grade of paper.

The story has been often related of the first

day's business at the original store in '61, when Wanamaker delivered the sales by wheeling a push-cart.

ADVERTISING

The first day's business made a cash profit of thirty-eight dollars; and the whole sum was invested in one advertisement in the next day's "*Inquirer.*"

His advertising methods were unique; he paid for the best talent he could get in this line.

Philadelphia woke one morning to find "W. & B." in the form of six-inch square posters stuck up all over the town. There was not another letter, no hint, just "W. & B." Such things are common enough now, but then the whole city was soon talking and wondering what this sign meant. After a few days, a second poster modestly stated that Wanamaker & Brown had begun to sell clothing at Oak Hall. Before long there were great signs, each 100 feet in length, painted on special fences built in a dozen places about the city, particularly near the railroad stations. These told of the new firm and were the first of a class that is now seen all over the country. Afterwards

BALLOONS

more than twenty feet high were sent up, and a suit of clothes was given to each person who brought one of them back. Whole counties were stirred up by the balloons. It was grand advertising, imitated since by all sorts of people. When the balloon idea struck the Oak Hall management it was quickly found that the only way to get these air-ships was to make them, and so, on the roof of the store, the cotton cloth was cut and oiled and put together. Being well built, and tied very tightly at the neck, they made long flights and some of them were used over and over again. In one instance, a balloon remained for more than six months in a cranberry swamp, and when the great bag was discovered, slowly swaying in the breeze, among the bushes, the frightened Jerseymen thought they had come upon an elephant, or, maybe, a survivor of the mastodons. This made more advertising of the very best kind for the clothing store,—the kind that excites interested, complimentary talk.

SEIZING OPPORTUNITIES

Genius consists in taking advantage of op-

portunities quite as much as in making them. Here was a young man doing things in an advertising way regardless of the custom of the business world, and with a wonderful knowledge of human nature. He took common-sense advantage of opportunities that were open to everybody.

Soon after the balloon experience, tally-ho coaching began to be a Philadelphia fad of the very exclusives. Immediately afterwards a crack coach was secured, and six large and spirited horses were used instead of four, and Oak Hall employees, dressed in the style of the most ultra coaching set, traversed the country in every direction, scattering advertising matter to the music of the horn. Sometimes they would be a week on a trip. No wonder Oak Hall flourished. It was kept in the very front of the procession all the time.

A little later, in the yachting season, the whole town was attracted and amused by processions and scatterings of men, each wearing a wire body frame that supported a thin staff from which waved a wooden burgee, or pointed flag reminding them of Oak Hall. Nearly two hundred of these prototypes of the "Sandwich man" were often out at one time.

But it was not only in the quick catching of a novel advertising thought that the new house was making history; in newspaper advertising, it was even further in advance. The statements of store news were crisp and unhackneyed, and the first artistic illustrations ever put into advertisements were used there. So high was the grade of this picture-work that art schools regularly clipped the illustrations as models; and the world-famous Shakespearian scholar, Dr. Horace Howard Furness, treasured the original sketches of "The Seven Ages" as among the most interesting in his unique collection.

PUSH AND PERSISTENCE

"The chief reason," said Mr. Wanamaker upon one occasion, "that everybody is not successful is the fact that they have not enough persistency. I always advise young men who write me on the subject to do one thing well, throwing all their energies into it."

To his employees he once said:—"We are very foolish people if we shut our ears and eyes to what other people are doing. I often pick up things from strangers. As you go along, pick up suggestions here and there, jot them

down and send them along. Even writing them down helps to concentrate your mind on that part of the work. You need not be afraid of overstepping the mark. The more we push each other, the better."

"TO WHAT, MR. WANAMAKER, DO YOU ATTRIBUTE YOUR GREAT SUCCESS?"

In reply to this question when asked, he replied:—"To thinking, toiling, trying, and trusting in God."

A serene confidence in a guiding power has always been one of the Wanamaker characteristics. He is always calm. Under the greatest stress he never loses his head.

In one physical particular, Mr. Wanamaker is very remarkable. He can work continually for a long time without sleep and without evidence of strain, and make up for it by a good rest afterwards.

When upon one occasion he was asked to name the essentials of success, he replied, curtly:—"I might write a volume trying to tell you how to succeed. *One way is to not be above taking a hint from a master.* I don't care to tell why I succeeded; because I object to talking about myself,—it isn't modest."

A feature of his make-up that has contributed largely to his success is his ability to concentrate his thoughts. No matter how trivial the subject brought before him, he takes it up with the appearance of one who has nothing else on his mind.

HIS VIEWS ON BUSINESS

When asked whether the small tradesmen has any "show" to-day against the great department stores, he said:—

"All of the great stores were small at one time. Small stores will keep on developing into big ones. You wouldn't expect a man to put an iron band about his business in order to prevent expansion, would you? There are, according to statistics, a greater number of prosperous small stores in the city than ever before. What better proof do you want?

"The department store is a natural product, evolved from conditions that exist as a result of fixed trade laws. Executive capacity, combined with command of capital, finds opportunity in these conditions, which are harmonious with the irresistible determination of the producer to meet the consumer directly, and of merchandise to find distribution along the

lines of least resistance. Reduced prices stimulate consumption, and increase employment; and it is sound opinion that the increased employment created by the department stores goes to women without curtailing that of men. In general it may be stated that large retail stores have shortened the hours of labor; and by systematic discipline have made it lighter. The small store is harder upon the sales-person and clerk. The effects upon the character and capacity of the employees are good. A well ordered, modern retail store is the means of education in spelling, writing, English language, system and method. Thus it becomes to the ambitious and serious employees, in a small way, a university, in which character is broadened by intelligent instruction practically applied."

When asked if a man with means but no experience would be safe in embarking in a mercantile business, he replied quickly:—

"A man can't drive a horse who has never seen one. No; a man must have training, must know how to buy and sell; only experience teaches that."

I have heard people marvel at the unbroken upward course of Mr. Wanamaker's career,

and lament that they so often make mistakes. But hear him:—

"Who does not make mistakes? Why, if I were to think only of the mistakes I have made, I should be miserable indeed."

I have heard it said a hundred times that Mr. Wanamaker started when success was easy. Here is what he says himself about it:—

"I think I could succeed as well now as in the past. It seems to me that the conditions of to-day are even more favorable to success than when I was a boy. There are better facilities for doing business, and more business to be done. Information in the shape of books and newspapers is now in the reach of all, and the young man has two opportunities where he formerly had one.

"We are much more afraid of combinations of capital than we have any reason for being. Competition regulates everything of that kind. No organization can make immense profits for any length of time without its field soon swarming with competitors. It requires brain and muscle to manage any kind of business, and the same elements which have produced business success in the past will produce it now, and will always produce it."

PUBLIC SERVICE

With the exception of his term of service as postmaster-general of the United States in President Harrison's cabinet—a service which was marked by great executive ability and the institution of many reforms,—Mr. Wanamaker has devoted his attention almost entirely to his business and his church work.

Yet as a citizen he has always taken a most positive course in opposition to the evils that threaten society. He has been forever prompted by his religious convictions to pursue vice either in the " dive, " or in municipal, state or national life. He hates a barroom, but he hates a treasury looter far more fiercely. His idea of Christian duty was evidently derived from the scene wherein the Master took a scourge and drove the corrupt traders and office-holders out of the temple. It is vigorous, it is militant; but it makes enemies. Consequently, Mr. Wanamaker is not without persistent maligners; getting himself well hated by the worst men in the community.

INVEST IN YOURSELF

Mr. Wanamaker's views of what life is for

are well expressed in the following excerpt from one of his addresses to young men.

In the course of his address, he related that he was once called upon to invest in an expedition to recover Spanish mahogany and doubloons from the Spanish Main, which, for half a century, had lain under the rolling waves in sunken frigates. "But, young men," he continued, "I know of better expeditions than this right at home, deep down under the sea of neglect and ignorance and discouragement. Near your own feet lie treasures untold, and you can have them all for your own by earnest watch and faithful study and proper care.

"Let us not be content to mine the most coal, make the largest locomotives and weave the largest quantities of carpets; but, amid the sounds of the pick, the blows of the hammer, the rattle of the looms, and the roar of the machinery, take care that the immortal mechanism of God's own hand,—the mind,—is still full-trained for the highest and noblest service.

"This is the most enduring kind of property to acquire, a property of soul which no disaster can wreck or ruin. Whatever may be the changes that shall sweep over our fair land, no

power can ever take away from you your investments in knowledge."

AT HOME

Like all other magnetic and forceful men, Mr. Wanamaker is striking in appearance, strong rather than handsome. He has a full, round head, a broad forehead, a strong nose, heavy-lidded eyes that flash with energy, heavy jaws that denote strength of will, and tightly closed lips that just droop at the corners, giving an ever-present touch of sedateness. His face is as smooth as a boy's and as mobile as an actor's; and, when lighted up in discussion, it beams with expression. He wears a hat that is only six and seven-eighths in size, but is almost completely circular in form. He is almost six feet tall and finely built, and all his motions have in them the springiness of health. Nobody ever saw him dressed in any other color than black, with a black necktie under a "turn-down" collar. But he always looks as trim as if he were just out of the hands of both tailor and barber.

It is his delight to pass much time at his country seat in Jenkintown. He is fond of the field and the river, the trees and flowers, and

all the growths with which God has beautified the earth. His house is a home-like structure, with wide piazzas, standing upon the crest of a hill in the midst of a noble lawn. A big rosery and orchid house stand near by. The before-breakfast ramble of the proprietor is finished in the flower garden, and every guest is laden with floral trophies.

Mr. Wanamaker was married, while he was the Secretary of the Y. M. C. A., to one whom he met at a church service, and who has been in full sympathy with his religious activities. He has been for forty years superintendent of the Bethany Sunday School in Philadelphia. He began with two teachers and twenty-seven pupils; and at the recent anniversary reported a school of 4,500, a church with 3,700 members, 500 having been added during the past year, several branches, and scores of department organizations.

John Wanamaker says to-day that his business success is due to his religious training. He is first of all a Christian.

The lesson of such a life should be precious to every young man. It teaches the value of untiring effort, of economy, of common sense applied to common business. I know of no

career in this country that offers more encouragement to young people. It shows what persistency can do; it shows what intelligent, well-directed, tireless effort can do; and it proves that a man may devote himself to helping others, to the Sunday School, to the Church, to broad philanthropy, and still be wonderfully successful in a business way.

VIII

Giving up Five Thousand Dollars a Year to Become a Sculptor

"MY life?" queried F. Wellington Ruckstuhl, one of the foremost sculptors of America, as we sat in his studio looking up at his huge figure of "Force." "When did I begin to sculpture? As a child I was forever whittling, but I did not have dreams then of becoming a sculptor. It was not till I was thirty-two years of age. And love,—disappointment in my first love played a prominent part."

"But as a boy, Mr. Ruckstuhl?"

"I was a poet. Every sculptor or artist is necessarily a poet. I was always reaching out and seeking the beautiful. My father was a foreman in a St. Louis machine shop. He came to this country in a sailing ship from

Alsace, by way of the Gulf to St. Louis, when I was but six years old. He was a very pious man and a deacon in a church. One time, Moody and Sankey came to town, and my father made me attend the meetings; I think he hoped that I would become a minister. Between the ages of fourteen and nineteen, I worked in a photographic supply store; wrote one hundred poems, and read incessantly. I enlarged a view of the statue of Nelson in Trafalgar Square, London, into a 'plaster sketch,' ten times as large as the picture, but still I did not know my path. I began the study of philosophy, and kept up my reading for ten years. My friends thought I would become a literary man. I wrote for the papers, and belonged to a prominent literary club. I tried to analyze myself. 'I am a man,' I said, 'but what am I good for? What am I to make of this life?' I drifted from one position to another. Every one was sorry to part with my services, for I always did my duties as well as they could be done. When I was twenty-five years of age, the girl to whom I was attached was forced by her mother to marry a wealthy man. She died a year afterwards; and I 'pulled up stakes,' and started on a haphazard,

reckless career. I went to Colorado, drifted into Arizona, prospected, mined, and worked on a ranch. I went to California, and at one time thought of shipping for China. My experiences would fill a book. Again I reached St. Louis. For a year, I could not find a thing to do, and became desperate."

"And you had done nothing at art so far?" I asked.

"At that time, I saw a clay sketch. I said to myself, 'I can do as well as that,' and I copied it. My second sketch admitted me to the St. Louis Sketch Club. I told my friends that I would be a sculptor. They laughed and ridiculed me. I had secured a position in a store, and at odd times worked at what I had always loved, but had only half realized it. Notices appeared in the papers about me, for I was popular in the community. I entered the competition for a statue of General Frank R. Blair. I received the first prize, but when the committee discovered that I was only a bill clerk in a store, they argued that I was not competent to carry out the work; although I was given the first prize model and the one hundred and fifty dollars accompanying it."

"But that inspired you?"

'Yes, but my father and mother put every obstacle in the way possible. I was driven from room to room. I was not even allowed to work in the attic." Here Mr. Ruckstuhl laughed. "You see what genius has to contend with. I was advanced in position in the store, till I became assistant manager, at two thousand dollars a year. When I told the proprietor that I had decided to be a sculptor, he gazed at me in blank astonishment. 'A sculptor?' he queried, incredulously, and made a few very discouraging remarks, emphasized with dashes. 'Why, young man, are you going to throw up the chance of a lifetime? I will give you five thousand dollars a year, and promote you to be manager if you will remain with me.'

"But I had found my life's work," said Mr. Ruckstuhl, turning to me. "I knew it would be a struggle through poverty, till I attained fame. But I was confident in myself, which is half of the battle."

"And you went abroad?"

"Yes, with but two hundred and fifty dollars," he replied. "I traveled through Europe for five months and visited the French

Salon. I said to myself, 'I can do that, and that;' and my confidence grew. But there was some work that completely 'beat' me. I returned to America penniless, but with a greater insight into art. I determined that I would retrace my steps to Paris, and study there for three years, and thought that would be sufficient to fully develop me. My family and friends laughed me to scorn, and I was discouraged by everyone. In four months, in St. Louis, I secured seven orders for busts, at two hundred dollars each, to be done after my return from France. That shows that some persons had confidence in me and in my talent.

"O, the student life in Paris! How I look back with pleasure upon those struggling, yet happy days! In two months, I started on my female figure of 'Evening,' in the nude, that is now in the Metropolitan Museum of Art. I finished it in nine months, and positively sweat blood in my work. I sent it to the Salon, and went to Italy. When I returned to Paris, I saw my name in the paper with honorable mention. I suppose you can realize my feelings; I experienced the first flush of victory. I brought it to America, and exposed it in St. Louis. Strange to say, I rose in the estimation of even

my family. My father actually congratulated me. A wealthy man in St. Louis gave me three thousand dollars to have my 'Evening' put into marble. I returned with it to Paris, and in a month and a quarter it was exhibited in the Salon. At the World's Fair, at Chicago, it had the place of honor, and received one of the eleven grand medals given to American sculptors. In 1892, I came to New York. This statue of 'Force' will be erected, with my statue of 'Wisdom,' on the new Court of Appeals in New York."

We gazed at it, seated, and clothed in partial armor, of the old Roman type, and holding a sword across its knees. The great muscles spoke of strength and force, and yet, with it all, there was an almost benign look upon the military visage.

"There is force and real action there withal, although there is repose." I said in admiration.

"Oh," said Mr. Ruckstuhl, "that's it, and that is what it is so hard to get! That is what every sculptor strives for; and, unless he attains it, his work, from my point of view, is worthless. There must be life in a statue; it

must almost breathe. In repose there must be dormant action that speaks for itself."

"Is most of your work done under inspiration?" I asked.

"There is nothing,—and a great deal,—in so-called inspiration. I firmly believe that we mortals are merely tools, mediums, at work here on earth. I peg away, and bend all my energies to my task. I simply accomplish nothing. Suddenly, after considerable preparatory toil, the mist clears away; I see things clearly; everything is outlined for me. I believe there is a conscious and a sub-conscious mind. The sub-conscious mind is the one that does original work; it cannot be affected by the mind that is conscious to all our petty environments. When the conscious mind is lulled and silenced, the sub-conscious one begins to work. That I call inspiration."

"Are you ever discouraged?" I asked out of curiosity.

"Continually," replied Mr. Ruckstuhl, looking down at his hands, soiled with the working clay. "Some days I will be satisfied with what I have done. It will strike me as simply fine. I will be as happy as a bird, and leave simply

joyous. The following morning, when the cloths are removed, I look at my previous toil, and consider it vile. I ask myself: 'Are you a sculptor or not? Do you think that you ever will be one? Do you consider that art?' So it is, till your task is accomplished. You are your own critic, and are continually distressed at your inability to create your ideals."

Mr. F. Wellington Ruckstuhl is forty-six years of age; neither short nor tall; a brilliant man, with wonderful powers of endurance, for his work is more exacting and tedious than is generally supposed.

"I have simply worked a month and a quarter on that statue," he said. "Certain work dissatisfied me, and I obliterated it. I have raised that head three times. My eyes get weary, and I become physically tired. On such occasions I sit down and smoke a little to distract my thoughts, and to clear my mind. Then my sub-conscious mind comes into play again," he concluded with a smile.

Mr. Ruckstuhl's best known works are: "Mercury Teasing the Eagle of Jupiter," which is of bronze, nine feet high, which he made in Paris; a seven-foot statue of Solon, erected in the Congressional Library, at Wash-

ington; busts of Franklin, Gœthe and Macaulay, on the front of the same library; and the eleven-foot statue of bronze of "Victory," for the Jamaica soldiers' and sailors' monument. In competition, he won the contract for an equestrian statue of General John F. Hartrauft, ex-Governor of Pennsylvania, which he also made in Paris. It is considered the finest piece of work of its kind in America. Besides this labor, he has made a number of medallions and busts; and with the completion of his statue of "Force," he will have made a wonderful record.

"Art was in me as a child," he said: "I was discouraged whenever it beckoned me, but finally claimed me. I surrendered a good position to follow it, whether it led through a thorny road or not. A sculptor is an artist, a musician, a poet, a writer, a dramatist,—to throw action, breath and life, music and a soul into his creation. I can pick up an instrument and learn it instantly; I can sing, and act, so I am in touch with the sympathies of the beings that I endeavor to create. You will find most sculptors and artists of my composite nature.

"There," said Mr. Ruckstuhl, and he stretched out his arm, with his palm down-

ward, and moved it through the air, as he gazed into distance, "you strive to create the imagination of your mind, and it comes to you as if sent from another world."

"You strive." That is the way to success.

IX

Questions and Answers: Business Pointers by Darius Ogden Mills

"WHAT is your idea, Mr. Mills,[1] of a successful life?" "If a bootblack does all the good he possibly can for his fellow-men, his life has been just as successful as that of the millionaire who helps thousands."

WORK

"What, Mr. Mills, do you consider the keynote of success?"

"Work," he replied, quickly and emphatically. "Work develops all the good there is in a man; idleness all the evil. Work sharpens all

[1] Mr. Mills was born in Western New York in 1825. He has been a leading financier for fifty years, in California, and in New York. He is connected with the management of eighteen important business and philanthropic corporations in New York city.

his faculties and makes him thrifty; idleness makes him lazy and a spendthrift. Work surrounds a man with those whose habits are industrious and honest; in such society a weak man develops strength, and a strong man is made stronger. Idleness, on the other hand, is apt to throw a man into the company of men whose object in life is usually the pursuit of unwholesome and demoralizing diversions."

SELF-DEPENDENCE

"To what formative influence do you attribute your material success, Mr. Mills?" I asked.

"I was taught very early that I would have to depend entirely upon myself; that my future lay in my own hands. I had that for a start, and it was a good one. I didn't waste any time thinking about succession to wealth, which so often acts as a drag upon young men. Many persons waste the best years of their lives waiting for dead men's shoes; and, when they get them, find them entirely too big to wear gracefully, simply because they have not developed themselves to wear them.

"As a rule, the small inheritance, which, to a boy, would seem large, has a tendency to

lessen his efforts, and is a great damage to him in the way of acquiring the habits necessary to success.

HABIT OF THRIFT

"No one can acquire a fortune unless he makes a start; and the habit of thrift, which he learns in saving his first hundred dollars, is of inestimable value later on. It is not the money, but the habit which counts.

"There is no one so helpless as a man who is 'broke,' no matter how capable he may be, and there is no habit so detrimental to his reputation among business men as that of borrowing small sums of money. This cannot be too emphatically impressed upon young men.

EXPENSIVE HABITS—SMOKING

"Another thing is that none but the wealthy, and very few of them, can afford the indulgence of expensive habits; how much less then can a man with only a few dollars in his pocket? More young men are ruined by the expense of smoking than in any other way. The money thus laid out would make them independent, in many cases, or at least would give them a good start. A young man should

be warned by the melancholy example of those who have been ruined by smoke, and avoid it."

FORMING AN INDEPENDENT BUSINESS JUDGMENT

"What marked traits," Mr. Mills, "have the influential men with whom you have been associated, possessed, which most impressed you?"

"A habit of thinking and acting for themselves. No end of people are ruined by taking the advice of others. This may answer temporarily, but in the long run it is sure to be disastrous. Any man who hasn't ability to judge for himself would better get a comfortable clerkship somewhere, letting some one of more ambition and ability do the thinking necessary to run the business."

THE MULTIPLICATION OF OPPORTUNITIES TO-DAY IN AMERICA

"Are the opportunities for making money as numerous to-day as they were when you started in business?"

"Yes, the progress of science and invention has increased the opportunities a thousandfold, and a man can find them wherever he seeks them in the United States in particular. It has

caused the field of employment of labor of all kinds to expand enormously, thus creating opportunities which never existed before. It is no longer necessary for a man to go to foreign countries or distant parts of his own country to make money. Opportunities come to him in every quarter. There is hardly a point in the country so obscure that it has not felt the revolutionizing influence of commercial enterprise. Probably railroads and electricity are the chief instruments in this respect. Other industries follow closely in their wake."

WHERE ONE'S BEST CHANCE IS—THE KNOWLEDGE OF MEN

"In what part of the country do you think the best chances for young men may be found?"

"The best place for a young man to make money is the town in which he was born and educated. There he learns all about everybody, and everybody learns about him. This is to his advantage if he bears a good character, and to the advantage of his towns-people if he bears a bad one. While a young man is growing up, he unconsciously absorbs a vast deal of knowledge of people and affairs, which would be

equal to money if he only has the judgment to avail himself of it. A knowledge of men is the prime secret of business success. Upon reflection, how absurd it is for a man to leave a town where he knows everything and everybody, and go to some distant point where he doesn't know anything about anybody or anything, and expect to begin on an equal footing with the people there who are thoroughly acquainted."

THE BOTTOM OF THE LADDER

"What lesson," Mr. Mills, "do you consider it most needful for young men to learn?"

"The lesson of humility;—not in the sense of being servile or undignified, but in that of paying due respect to men who are their superiors in the way of experience, knowledge and position. Such a lesson is akin to that of discipline. Members of the royal families of Europe are put in subordinate positions in the navies or armies of their respective countries, in order that they may receive the training necessary to qualify them to take command. They must first know how to obey, if they would control others.

"In this country, it is customary for the sons of the presidents of great railroads, or

other companies, to begin at the bottom of the ladder and work their way up step by step, just the same as any other boy in the employ of the corporation. This course has become imperatively necessary in the United States, where each great business has become a profession in itself. Most of the big machine shops number among their employees, scions of old families who carry dinner pails, and work with files or lathes, the same as anyone else. Such shoulder-to-shoulder experience is invaluable to a man who is destined to command, because he not only masters the trade technically, but learns all about the men he works with and qualifies himself to grapple with labor questions which may arise.

"There is no end of conspicuous examples of the wisdom of this system in America. There are also many instances of disaster to great industrial concerns due to the inexperience or the lack of tact of men placed suddenly in control."

THE BENEFICENT USE OF CAPITAL

Upon this point, Mr. Mills said:—"A man can, in the accumulation of a fortune, be just as great a benefactor of mankind as in the distribution of it. In organizing a great industry,

one opens up fields of employment for a multitude of people who might otherwise be practically helpless, giving them not only a chance to earn a living for themselves and their families, but also to lay by a competency for old age. All honest, sober men, if they have half a chance, can do that; but only a small percentage can ever become rich. Now the rich man, having acquired his wealth, knows better how to manage it than those under him would, and having actual possession, he has the power to hold the community of his employees and their interests together, and prevent disintegration, which means disaster so much oftener to the employee than to the employer."

THE WHOLESOME DISCIPLINE OF EARNING AND SPENDING

"What is the responsibility of wealth, Mr. Mills?"

"A man must learn not to think too much of money. It should be considered as a means and not an end; and the love for it should never be permitted to so warp a man's mind as to destroy his interest in progressive ideas. Making money is an education, and the wide experience thus acquired teaches a man discrim-

ination in both men and projects, where money is under consideration. Very few men who make their own money use it carelessly. Most good projects that fail owe their failure to bad business management, rather than to lack of intrinsic merit. An inventor may have a very good thing, and plenty of capital may be enlisted but if a man not acquainted with the peculiar line, or one who is not a good salesman or financier be employed as manager, the result is disastrous. A man should spend his money in a way that tends to advance the best interests of society in the country he lives in, or in his own neighborhood at least. There is only one thing that is a greater harm to the community than a rich spendthrift, and that is a miser."

PERSONAL: A WORD ABOUT CHEAP HOTELS

"How did you happen to establish the system of hotels which bears your name, Mr. Mills?"

"I had been looking around for several years to find something to do that would be for the good of the community. My mind was largely on other matters, but it occurred to me that the hotel project was the best, and I immediately

went to work at it. My purpose was to do the work on so large a scale that it would be appreciated and spread all over the country; for as the sources of education extend, we find more and more need of assisting men who have a disposition for decency and good citizenship. *The mechanic is well paid, and the man who has learned to labor is much more independent than he who is prepared for a profession or a scientific career, or other objects in life that call for higher education.* Clerks commencing at small salaries need good surroundings and economy to give themselves a start. Such are the men for whom the hotels were established."

X

Nordica: What it Costs to Become a Queen of Song

OF the internationally famous singers, none is a greater favorite than Madame Lillian Nordica. She has had honors heaped upon her by every music-loving country. Milan, St. Petersburg, Paris, London and New York, in turn accepted her. Jewel cases filled with bracelets, necklaces, tiaras and diadems, of gold and precious stones, attest the unaffected sincerity of her admirers in all the great music-centers of the world. She enjoys, in addition, the distinction of being one of the first two American women to attain to international fame as a singer in grand opera.

Madame Nordica I met on appointment at the Waldorf-Astoria Hotel, where she kindly detailed for me

THE DIFFICULTIES

she encountered at the outset:—" Distinction in the field of art is earned: it is not thrust upon anyone. The material for a great voice may be born in a person—it is, in fact,—but the making of it into a great voice is a work of the most laborious character.

" In some countries the atmosphere is not very favorable to beginners. Almost any of the greater European nations is probably better in this respect than the United States: not much better, however, because nearly all depends upon strength of character, determination, and the will to work. If a girl has these, she will rise as high, in the end, anywhere."

Madame Nordica came of New England stock, being born at Farmington, Maine, and reared in Boston. Her parents, bearing the name Norton, possessed no musical talent. " Their opinion of music," said Madame, " was that it is an airy, inviting art of the devil, used to tempt men's feet to stray from the solemn path of right. They believed music, as a vocation, to be nearly as reprehensible as a stage career, and for the latter they had no tolerance whatever. I must be just, though, and own

that they did make an exception in the case of church music, else I should never have received the slightest encouragement in my aspirations. They considered music in churches to be permissible,—even laudable, so when I displayed some ability as a singer, I was allowed to use it in behalf of religion, and I did. I joined the church choir and sang hymns about the house almost constantly.

"But I needed a world of training. I had no conception of what work lay ahead of anyone who contemplates singing perfectly. I had no idea of how high I might go myself. All I knew was that I could sing, and that I would win my way with my voice if I could."

"How did you accomplish it?"

"By devoting all my time, all my thought, and all my energy to that one object. I devoured church music,—all I could get hold of. I practised new and difficult compositions all the time I could spare.

"I became a very good church singer; so much so that when there were church concerts or important religious ceremonies, I was always in demand. Then there began to be a social demand for my ability, and, later, a public demand in the way of concerts.

"At first, I ignored all but church singing. My ambition ran higher than concert singing, and I knew my parents would not consent. I persuaded them to let me have my voice trained. This was not very difficult, because my church singing, as it had improved, became a source of considerable profit; and they saw even greater results for me in the large churches, and in the religious field. So I went to a teacher of vocal culture, Professor John O'Neill, one of the instructors in the New England Conservatory of Music, Boston. He was a fine old teacher, a man with the highest ideals concerning music, and of the sternest and most exacting method. He made me feel, at first, that

THE WORLD WAS MINE, IF I WOULD WORK.

Hard work was his constant cry. There must be no play, no training for lower forms of public entertainment, no anything but study and practice. I must work and perfect myself in private, and then suddenly appear unheralded in the highest class of opera and take the world by storm.

"It was a fine fancy, but it would not have been possible. O'Neill was a fine musician. Under him I studied the physiology of the voice,

and practiced singing oratorios. I also took up Italian, familiarizing myself with the language, with all the songs and endless *arias*. In fact, I made myself as perfect in Italian as possible. In *three years* I had been greatly improved. Mr. O'Neill, however, employed methods of making me work which discouraged me. He was a man who would magnify and storm over the slightest error, and make light of or ignore the sincerest achievements. He put his grade of perfection so high that I began to consider it unattainable, and lost heart. Finally, I gave it up and rested awhile, uncertain of everything.

"After I had thought awhile and regained some confidence, I came to New York to see Mme. Maretzek. She was not only a teacher, but also a singer quite famous in her day, and she thoroughly knew the world of music. She considered my voice to be of the right quality for the highest grade of operatic success; and gave me hope that, with a little more training, I could begin my career. She not only did that, but also set me to studying the great operas, 'Lucia' and the others, and introduced me to the American musical celebrities. Together we heard whatever was worth hearing in New York.

"When the renowned Brignola came to New York, she took me to the Everett House, where he was stopping and introduced me. They were good friends, and, after gaining his opinion on the character of my voice, she had him play 'Faust.' That was a wonderful thing for me. To hear the great Brignola! It fired my ambition. As I listened I felt that I could also be great and that people, some day, might listen to me as enraptured as I then was by him.

"IT PUT NEW FIRE INTO ME

and caused me to fairly toil over my studies. I would have given up all my hours if only I had been allowed or requested.

"So it went, until *after several years of study,* Madame Maretzek thought I was getting pretty well along and might venture some important public singing. We talked about different ways of appearing and what I would sing, and so on, until finally Gilmore's band came to Madison Square Garden. He was in the heyday of his success then, and carried important soloists with him. Madame Maretzek decided that she would take me to see him and get his opinion; and so, one day, toward the very last of his Madison Square engagement,

we went to see him. Madame Maretzek was on good terms with him also. I remember that she took me in, one morning, when he was rehearsing. I saw a stout, kindly, genial-looking man who was engaged in tapping for attention, calling certain individuals to notice certain points, and generally fluttering around over a dozen odds and ends. Madame Maretzek talked with him a little while and then called his attention to me. He looked toward me.

" 'Thinks she can sing, eh? Yes, yes. Well, all right! Let her come right along.'

" Then he called to me,—'Come right along now. Step right up here on the stage. Yes, yes. Now, what can you sing?'

" I told him I could sing almost anything in oratorio or opera, if he so wished. He said: 'Well, well, have a little from both. Now, what shall it be?'

" I shall never forget his kindly way. He was like a good father, gentle and reassuring, and seemed really pleased to have me there and to hear me. I went up on the platform and told him that I would begin with 'Let the Bright Seraphim,' and he called the orchestra to order and had them accompany me."

" I was slightly nervous at first, but recov-

ered my equanimity and sang up to my full limit of power. When I was through, he remarked, 'Very good! very good!' and 'Now, what else?' I next sang an *aria* from 'Somnambula.' He did not hesitate to express his approval, which was always, 'Very good! very good! Now, what you want to do,' he said, 'is to get some roses in your cheeks, and come along and sing for me.' After that, he continued his conference with Madame Maretzek and then we went away together.

"I WAS TRAVELING ON AIR

when I left, I can assure you. His company was famous. Its engagement had been most successful. Madame Poppenheim was singing with it, and there were other famous names. There were only two more concerts to conclude his New York engagement, but he had told Madame Maretzek that if I chose to come and sing on these occasions, he would be glad to have me. I was more than glad of the opportunity and agreed to go. We arranged with him by letter, and, when the evening came, I sang. My work made a distinct impression on the audience, and pleased Mr. Gilmore wonderfully. After the second night, when all was

over, he came to me, and said: 'Now, my dear, of course there is no more concert this summer, but I am going West in the fall. Now, how would you like to go along?'

"I told him that I would like to go very much, if it could be arranged; and, after some negotiation, he agreed to pay the expenses of my mother and myself, and give me one hundred dollars a week besides. I accepted, and when the western tour began, we went along.

"I gained thorough control of my nerves upon that tour, and learned something of audiences, and of what constitutes distinguished 'stage presence.' *I studied all the time,* and, with the broadening influence of travel, gained a great deal. At the end of the tour, my voice was more under my control than ever before, and I was a better singer all around."

"You did not begin with grand opera, after all?"

"No, I did not. It was not a perfect conclusion of my dreams, but it was a great deal. My old instructor, Mr. O'Neill, took it worse than I did. He regarded my ambitions as having all come to naught. I remember that he wrote me a letter in which he thus called me to account:—

"'After all my training, my advice, that you should come to this! A whole lifetime of ambition and years of the hardest study consumed to fit you to go on the road with a brass band! Poh!'

"I pocketed the sarcasm in the best of humor, because I was sure of my dear old teacher's unwavering faith in me, and knew that he wrote only for my own good. Still, I felt that I was doing wisely in getting before the public, and so decided to wait quietly and see if time would not justify me.

"When the season was over, Mr. Gilmore came to me again. He was the most kindly man I ever knew. His manner was as gentle and his heart as good as could be.

"'I am going to Europe,' he said. 'I am going to London and Paris and Vienna and Rome, and all the other big cities. There will be a fine chance for you to see all those places and let Europeans hear you. They appreciate good singers. Now, little girl, do you want to come? If you do, you can.'"

"I talked it over with my mother and Madame Maretzek, and decided to go; and so, the next season, we were

IN EUROPE.

"We gave seventy-eight concerts in England and France. We opened the Trocadero at Paris, and mine was the first voice of any kind to sing there. This European tour of the American band was a great and successful venture. American musicians still recall the *furore* which it created, and the prestige which it gained at home. Mr. Gilmore was proud of his leading soloists. In Paris, where the great audiences went wild over my singing, he came to praise me personally in unmeasured terms. 'My dear,' he said, 'you are going to be a great singer. You are going to be crowned in your own country yet. Mark my words: they are going to put diamonds on your brow!' [Madame Nordica had good occasion to recall this, in 1898, many years after, when her enthusiastic New York admirers crowned her with a diamond tiara as a tribute of their admiration and appreciation.]

"It was at the time when Gilmore was at the height of his Paris engagement that his agent ran off with his funds and left the old bandmaster almost stranded. Despite his sincere trouble, he retained his imperturbable good nature, and came out of it successfully. He

came to me, one morning, smiling good-naturedly, as usual. After greeting me and inquiring after my health, he said: 'My dear child, you have saved some little money on this tour?' I told him I had.

"'Now, I would like to borrow that little from you.'

"I was very much surprised at the request, for he said nothing whatever of his loss. Still, he had been so uniformly kind and generous, and had won our confidence and regard so wholly, that I could not hesitate. I turned over nearly all I had, and he gathered it up and went away, simply thanking me. Of course, I heard of the defalcation later. It became generally known. Our salaries went right on, how-however, and in a few months the whole thing had been quite forgotten, when he came to me one morning with money ready in his hand.

"'To pay you what I owe you, my dear,' he said.

"'Oh, yes!' I said; 'so and so much,'—naming the amount.

"'Here it is,' he said; and, handing me a roll of bills, he went away. Of course, I did not count it until a little later; but, when I did, I found just double the amount I had named,

and no persuasion would ever induce him to accept a penny of it back."

"When did you part with Gilmore?"

"At the end of that tour. He determined to return to America, and I had decided to spend some of my earnings on further study in Italy. Accordingly, I went to Milan, to the singing teacher San Giovanni. On arriving there, I visited the old teacher and stated my object. I said that I wanted to sing in grand opera.

"'WHY DON'T YOU SING IN GRAND OPERA?'

"He answered; 'let me hear your voice.'

"I sang an *aria* from 'Lucia'; and, when I was through, he said, dryly: 'You want to sing in grand opera?'

"'Yes.'

"'Well, why don't you?'

"'I need training.'

"'Nonsense!' he answered. 'We will attend to that. You need a few months to practice Italian methods,—that is all.'

"So I spent three months with him. After much preparation, I made my *début* as Violetta in Verdi's opera, 'La Traviata,' at the Teatro Grande, in Brescia."

The details of Madame Nordica's Italian ap-

pearance are very interesting. Her success was instantaneous. Her fame went up and down the land, and across the water—to her home. She next sang in Gounod's "Faust," at Geneva, and soon afterwards appeared at Navarro, singing Alice in Meyerbeer's "Roberto," the enthusiastic and delighted subscribers presenting her with a handsome set of rubies and pearls. After that, she was engaged to sing at the Russian capital, and accordingly went to St. Petersburg, where, in October, 1881, she made her *début* as La Filma in "Mignon."

There, also her success was great. She was the favorite of the society of the court, and received pleasant attentions from every quarter. Presents were made her, and inducements for her continued presence until two winters had passed. Then she decided to revisit France and Paris.

THIS WAS HER CROWNING TRIUMPH

"I wanted to sing in grand opera at Paris," she said to me. "I wanted to know that I could appear successfully in that grand place. I counted my achievements nothing until I could do that."

"And did you?"

"Yes. In July, 1882, I appeared there."

This was her greatest triumph. In the part of Marguerite, she took the house by storm, and won from the composer the highest encomiums. Subsequently, she appeared with equal success as Ophélie, having been specially prepared for both these rôles by the respective composers, Charles Gounod and Ambroise Thomas.

"You should have been satisfied, after that," I said.

"I was," she answered. "So thoroughly was I satisfied that soon afterwards I gave up my career, and was married. For two years, I remained away from the public; but after that time, my husband having died, I decided to return.

"I made my first appearance at the Burton Theatre in London, and was doing well enough when Colonel Mapleson came to me. He was going to produce grand opera,—in fact he was going to open Covent Garden, which had been closed for a long time, with a big company. He was another interesting character. I found him to be generous and kind-hearted and happy-spirited as anyone could be. When he came to me, it was in the most friendly manner. 'I am

going to open Covent Garden,' he said. 'Now, here is your chance to sing there. All the great singers have appeared there. Patti, Gerster, Nilsson, Tietjens; now it's your turn,—come and sing.'

"'How about terms?' I asked.

"'Terms!' he exclaimed; 'terms! Don't let such little details stand in your way. What is money compared to this? Ignore money. Think of the honor, of the memories of the place, of what people think of it.' And then he waved his arms dramatically.

"Yet, we came to terms, not wholly sacrificial on my part, and the season began. Covent Garden had not been open for a long time. It was in the spring of the year, cold and damp. There was a crowded house, though, because fashion accompanied the Prince of Wales there. He came, night after night, and heard the opera through with an overcoat on.

"It was no pleasant task for me, or healthy, either, but the Lord has blessed me with a sound constitution. I sang my parts, as they should be sung—some in bare arms and shoulders, with too little clothing for such a temperature. I nearly froze, but it was Covent Garden

and a great London audience, and so I bore up under it.

"Things went on this way very successfully until Sir Augustus Harris took Drury Lane and decided to produce grand opera. He started in opposition to Colonel Mapleson, and so Covent Garden had to be given up. Mr. Harris had more money, more prestige with society, and Colonel Mapleson could not live under the division of patronage. When I saw the situation, I called on the new manager and talked with him concerning the next season. He was very proud and very condescending, and made sure to show his indifference to me. He told me all about the brilliant season he was planning, gave me a list of the great names he intended to charm with, and wound up by saying he would call on me, in case of need, but thought he had all the celebrities he could use, but would let me know.

"Of course, I did not like that; but I knew I could rest awhile, and so was not much disturbed. The time for the opening of the season arrived. The papers were full of accounts of the occasion, and there were plenty of remarks concerning my non-appearance. Then

'Aida' was produced, and I read the criticisms of it with interest.

SHE WAS INDISPENSABLE IN "AIDA"

"The same afternoon a message came for me: 'Would I come?' and 'Would I do so and so?' I would, and did. I sang 'Aida' and then other parts, and gradually all the parts but one, which I had longed to try, but had not yet had the opportunity given to me. I was very successful, and Sir Augustus was very friendly.

"The summer after that season, I visited Ems, where the De Reszkes were. One day they said: 'We are going to Beirut, to hear the music,—don't you want to go along?' I thought it over, and decided that I did. My mother and I packed up and departed. When I got there and saw those splendid performances, I was entranced. It was perfectly beautiful. Everything was arranged after an ideal fashion. I had a great desire to sing there, and boasted to my mother that I would. When I came away, I was fully determined to carry it out."

"Could you speak German?"

"Not at all. I began, though, at once, to

study it; and, when I could talk it sufficiently, I went to Beirut and saw Madame Wagner."

THE KINDNESS OF FRAU WAGNER

"Did you find her the imperious old lady she is said to be?"

"Not at all. She welcomed me most heartily; and, when I told her that I had come to see if I could not sing there, she seemed much pleased. She treated me like a daughter, explained all that she was trying to do, and gave me a world of encouragement. Finally, I arranged to sing and create 'Elsa' after my own idea of it, during the season following the one then approaching.

"Meanwhile I came to New York to fulfill my contract for the season of 1894-1895. While doing that, I made a study of Wagner's, and, indeed, of all German music; and, when the season was over, went back and sang it."

Madame Nordica has found her work very exacting. For it she has needed a good physique; her manner of study sometimes calling for an extraordinary mental strain:—

"I remember once, during my season under Augustus Harris, that he gave a garden party, one Sunday, to which several of his company

were invited,—myself included. When the afternoon was well along, he came to me and said: 'Did you ever sing "Valencia" in "The Huguenots?"' I told him I had not.

"'Do you think you could learn the music and sing it by next Saturday night?'

"I felt a little appalled at the question, but ventured to say that I could. I knew that hard work would do it.

"'Then do,' he replied; 'for I must have you sing it.'

"The De Reszkes, Jean and Edouard, were near at the time, and offered to assist me. 'Try it,' they said, and so I agreed. We began rehearsals, almost without study, the very next day, both the De Reszkes prompting me, and by Friday they had me letter-perfect and ready to go on. Since the time seemed so peculiarly short, they feared for me, and, during the performance, stationed themselves, one in either wing, to reassure me. Whenever I approached near to either side of the stage, it was always to hear their repeated 'Be calm!' whispered so loud that the audience could almost hear it. Yet I sang easily, never thinking of failure."

MUSICAL TALENT OF AMERICAN GIRLS

"Let me ask you one thing," I said. "Has America good musical material?"

"As much as any other country, and more, I should think. The higher average of intelligence here should yield a greater percentage of musical intelligence."

"Then there ought to be a number of American women who can do good work of a high order?"

"There ought to be, but it is a question whether there will be. They are not cut out for the work which it requires to develop a good voice. I have noticed that young women seem to *underestimate the cost of distinction.* It means more than most of them are prepared to give; and, when they face the exactions of art, they falter and drop out. Hence we have many middle-class singers, but few really powerful ones."

"What are these exactions you speak of?"

"*Time, money, and loss of friends, of pleasure. To be a great singer means, first, to be a great student. To be a great student means that you have no time for balls and parties, very little for friends, and less for carriage rides and*

pleasant strolls. All that is really left is a shortened allowance of sleep, of time for meals, and time for exercise.

THE PRICE OF FAME

"Permanent recognition, which cannot be taken away from you, is acquired only by *a lifetime of most earnest labor.* People are never internationally recognized until they have reached middle life. Many persons gain notoriety young, but that goes as quickly as it comes. *All true success is founded on real accomplishment acquired with difficulty.*

"Many young people have genius; but they need training for valuable service. The world gives very little recognition for a great deal of labor paid in; and, when I earn a thousand dollars for a half hour's singing sometimes, it does not nearly average up for all the years and for the labor much more difficult which I contributed without recompense."

XI

How William Dean Howells Worked to Secure a Foothold

IN answer to my question, what constitutes success in life, Mr. Howells replied that everything is open to the beginner who has sufficient energy, perseverance and brains.

"A young man stands at the parting of two ways," he added, "and can take his path this way or that. It is comparatively easy then, with good judgment. Youth is certainly the greatest advantage which life supplies."

Upon my inquiring about his early life, he replied: "I was born in a little southeastern Ohio village—Martin's Ferry,—which had little of what people deem advantages in schools, railroads, or population. I am not sure, however, that compensation was not had in other things."

As to any special talent for literary composition, Mr. Howells remarked that he came of a

reading race, which had always loved literature in a way, and that it was his inclination to read.

Upon this, I ventured to ask: "Would you say that, with a leaning toward a special study, and good health, a fair start, and perseverance, anyone can attain to distinction?"

"That is a probability, only. You may be sure that distinction will not come without those qualities. The only way to succeed, is to have them; although having them will not necessarily guarantee distinction. I can only say that I began with

A LOFTY IDEAL.

"My own youth was not specially marked by advantages. There were none, unless you can call a small bookcase full of books, which my home contained, an advantage. The printing-office was my school from a very early date. My father thoroughly believed in it, and he had his belief as to work, which he illustrated as soon as we were old enough to learn the trade he followed. We could go to school and study, or we could go into the printing-office and work, with perhaps an equal chance of learning; but we could not be idle."

"And you chose the printing-office?"

"Not wholly. As I recall it, I went to and fro between the schoolhouse and the printing-office. When I tired of one, I was promptly given the other.

"As the world goes now, we were poor. My father's income was never above twelve hundred a year, and his family was large; but nobody was rich then. We lived in the simple fashion of that time and place.

"My reading, somehow, went on pretty constantly. No doubt my love for it won me a chance to devote time to it. The length varied with varying times.

"Sometimes I read but little. There were so many years of work—of over-work, indeed, which falls to the lot of many,—that I should be ashamed to speak of it except in accounting for the fact of my little reading. My father had sold his paper in Hamilton, and bought an interest in another at Dayton, and at that time we were all straining our utmost to help pay for it. In that period very few hours were given to literature. My daily tasks began so early, and ended so late, that I had little time, even if I had the spirit for reading. Sometimes I had to sit up until midnight, waiting

for telegraphic news, and be up again at dawn to deliver the papers, working afterwards at the case; but that was only for a few years."

ACQUIRING A LITERARY STYLE

"When did you find time to seriously apply yourself to literature?"

"I think I did so before I really had the time. Literary aspirations were stirred in me by the great authors whom I successively discovered, and I was perpetually imitating the writings of these,—modeling some composition of my own after theirs, but never willing to own it."

"Do you attribute your style to the composite influence of these various models?"

"No doubt they had their effect, as a whole, but individually I was freed from the last by each succeeding author, until at length I came to understand that I must be like myself, and no other."

"Had you any conveniences for literary research, beyond the bookcase in your home?"

"If you mean a place to work, I had a narrow, little space, under the stairs. There was a desk pushed back against the wall, which the irregular ceiling sloped down to meet, behind

it; and at my left was a window, which gave a good light on the writing leaf of my desk. This was

MY WORKSHOP

for six or seven years,—and it was not at all a bad one. It seemed, for a while, so very simple and easy to come home in the middle of the afternoon, when my task at the printing-office was done, and sit down to my books in my little study, which I did not finally leave until the family were all in bed. My father had a decided bent for literature; and, when I began to show a liking for it, he was eager to direct my choice. This finally changed to merely recommending books, and eventually I was left to my own judgment,—a perplexed and sorrowfully mistaken judgment, at times."

"In what manner did you manage to read the works of all your favorite authors?"

"My hours in the printing-office began at seven and ended at six, with an hour at noon for dinner, which I used for putting down such verses as had come to me in the morning. As soon as supper was over I got out my manuscripts, and sawed, and filed, and hammered away at my blessed poems, which were little

less than imitations, until nine, when I went regularly to bed, to rise again at five. Sometimes the foreman gave me an afternoon off on Saturday, which I devoted to literature."

As I questioned further, it was said: "As I recall it, my father had secured one of those legislative clerkships in 1858, which used to fall sometimes to deserving country editors; and together we managed and carried out a scheme for corresponding with some city papers. Going to Columbus, the State Capital, we furnished a daily letter giving an account of the legislative proceedings, which I mainly wrote from the material he helped me to gather. The letters found favor, and my father withdrew from the work wholly. These letters I furnished during two years.

"At the end of the first winter, a Cincinnati paper offered me the city editorship, but one night's round with the reporters at the police station satisfied me that I was not meant for that kind of work. I then returned home for the summer, and spent my time in reading, *and in sending off poems, which regularly came back*. I worked in my father's printing-office; but, as soon as my task was done, went home to my books, and worked away at them until

supper. Then a German bookbinder, with whom I was endeavoring to read Heine in the original, met me in my father's editorial room, and with a couple of candles on the table between us, and our Heine and the dictionary before us, we read until we were both tired out."

As to the influence of this constant writing and constant study, Mr. Howells remarked: "It was not without its immediate use. I learned

HOW TO CHOOSE BETWEEN WORDS,

after a study of their fitness; and, though I often employed them decoratively, and with no vital sense of their qualities, still, in mere decoration, they had to be chosen intelligently, and after some thought about their structure and meaning. I could not imitate great writers without imitating their method, which was to the last degree intelligent. They knew what they were doing, and, although I did not always know what I was doing, they made me wish to know, and ashamed of not knowing. The result was beneficial."

Mr. Howells then spoke of his astonishment, when one day he was at work as usual in the

printing-office at home, upon being invited to take a place upon a Republican newspaper at Columbus, the Capital; where he was given charge of the news department. This included the literary notices and book reviews, to which, at once, he gave his prime attention.

"When did you begin to contribute to the literature of the day?"

"If you mean, when did I begin to attempt to contribute, I should need to fix an early date, for I early had experience with rejected manuscripts. One of my pieces, upon the familiar theme of Spring, was the first thing I ever had in print. My father offered it to the editor of the paper I worked on in Columbus, where we were then living, and I first knew what he had done, when with mingled shame and pride, I saw it in the journal. In the tumult of my emotions, I promised myself that if I ever got through that experience safely, I would never suffer anything else of mine to be published; but it was not long before I offered the editor a poem, myself."

"When did you publish your first story?"

"My next venture was a story in the Ik Marvel manner, which it was my misfortune to carry into print. I did not really write it,

but composed it, rather, in type, at the case. It was not altogether imitated from Ik Marvel, for I drew upon the easier art of Dickens, at times, and helped myself out in places with bold parodies of 'Bleak House.' It was all very well at the beginning, but I had not reckoned with the future sufficiently to start with any clear ending in my mind; and, as I went on, I began to find myself more and more in doubt about it. My material gave out; my incidents failed me; the characters wavered, and threatened to perish in my hands. To crown my misery, there grew up an impatience with the story among its readers; and this found its way to me one day, when I overheard an old farmer, who came in for his paper, say that he 'did not think that story amounted to much.' I did not think so either, but it was deadly to have it put into words, and how I escaped the moral effect of the stroke I do not know. Somehow, I managed to bring the wretched thing to a close, and to live it slowly down.

THE FATE FOLLOWING COLLABORATION

"My next contribution to literature was jointly with John J. Piatt, the poet, who had

worked with me as a boy in the printing-office at Columbus. We met in Columbus, where I was then an editor, and we made our first literary venture together in a volume entitled, 'Poems of Two Friends.' *The volume became instantly and lastingly unknown to fame;* the West waited, as it always does, to hear what the East should say. The East said nothing, and two-thirds of the small edition of five hundred copies came back upon the publisher's hands. This did not deter me, however, from contributing to the periodicals, which from time to time, accepted my efforts.

"I remained as an editor, in Columbus, until 1861, when I was appointed

CONSUL AT VENICE.

I really wanted to go to Germany, that I might carry forward my studies in German literature; and I first applied for the Consulate at Munich. The powers at Washington thought it quite the same thing to offer me Rome, but I found that the income of the Roman Consulate would not give me a living, and I was forced to decline it. Then the President's private secretaries, Mr. John Nicolay and Mr. John Hay, who did not know me, except as a

young Westerner who had written poems in the 'Atlantic Monthly,' asked me how I would like Venice, promising that the salary would be put up to $1,000 a year. It was really put up to $1,500, and I accepted. I had four years of nearly uninterrupted leisure at Venice."

"Was it easier, when you returned from Venice?"

"Not at all. On my return to America, my literary life took such form that most of my reading was done for review. I wrote at first a good many of the lighter criticisms in 'The Nation;' and then I went to Boston, to become assistant editor of 'The Atlantic Monthly,' where I wrote the literary notices for that periodical for four or five years; then I became editor until 1881. And I have had some sort of close relation with magazines ever since."

"Would you say that all literary success is very difficult to achieve?" I ventured.

"All that is enduring."

"It seems to me ours is an age when fame comes quickly."

"Speaking of quickly made reputations," said Mr. Howells, meditatively, "did you ever hear of Alexander Smith? He was a poet who, in the fifties, was proclaimed immortal by the

critics, and ranked with Shakespeare. I myself read him with an ecstasy which, when I look over his work to-day, seems ridiculous. His poem, 'Life-Drama,' was heralded as an epic, and set alongside of 'Paradise Lost.' I cannot tell how we all came out of this craze, but the reading world is very susceptible to such lunacies. He is not the only third-rate poet who has been thus apotheosized, before and since. You might have envied his great success, as I certainly did; but it was not success, after all; and I am sure that real success is always difficult to achieve."

MY LITERARY EXPERIENCE

"Do you believe that success comes to those who have a special bent or taste, which they cultivate by hard work?"

"I can only answer that out of *my literary experience*. For my own part, I believe I have *never got any good from a book, that I did not read merely because I wanted to read it.* I think this may be applied to anything a person does. The book, I know, which you read from a sense of duty, or because for any reason you must, is apt to yield you little. This, I think,

is also true of everything, and the endeavor that does one good—and lasting good,—is *the endeavor one makes with pleasure.* Labor done in another spirit will serve in a way, but pleasurable labor brings, on the whole, I think, the greatest reward."

Referring again to his early years, it was remarked: "A definite literary ambition grew up in me; and in the long reveries of the afternoon, when I was distributing my case in the printing-office, I fashioned a future of overpowering magnificence and undying celebrity. I should be ashamed to say what literary triumphs I achieved in those preposterous deliriums. But I realize now that such dreams are nerving, and sustain one in an otherwise barren struggle."

"Were you ever tempted and willing to abandon your object of a literary life for something else?"

"I was, once. My first and only essay aside from literature was in *the realm of law.* It was arranged with a United States Senator that I should study law in his office. I tried it a month, but almost from the first day, I yearned to return to my books. *I had not only*

to go back to literature, but to the printing-office, and I gladly chose to do it,—a step I never regretted."

AS TO A HAPPY LIFE,

it was said by Mr. Howells, at the close of our interview:—

"I have come to see life, not as the chase of a forever-impossible personal happiness, but as *a field for endeavor toward the happiness of the whole human family.* There is no other success. I know, indeed, of nothing more subtly satisfying and cheering than a knowledge of the real good will and appreciation of others. Such happiness does not come with money, nor does it flow from a fine physical state. It cannot be bought. But it is the keenest joy, after all; and the toiler's truest and best reward."

XII

JOHN D. ROCKEFELLER

THE richest man in the United States, John Davidson Rockefeller, has consented to break his rule never to talk for publication; and he has told me the story of his early struggles and triumphs, and given utterance to some strikingly interesting observations anent the same. In doing so, he was influenced by the argument that there is something of helpfulness, of inspiration, in the career of every self-made man.

While many such careers have been prolific of vivid contrasts, this one is simply marvelous. Whatever may be said by political economists of the dangers of vast aggregations of wealth in the hands of the few, there can be no question of the extraordinary interest attaching to the life story of a man who was a farm laborer at the age of fifteen, who left school at eighteen, because he felt it to be his duty to care for his

mother and brother, and who, at the zenith of his business career, has endowed Chicago University with $7,500,000 out of a fortune estimated at over $300,000,000,—probably the largest single fortune on earth.

The story opens in a fertile valley in Tioga County, New York, near the village of Richford, where John D. Rockefeller was born on his father's farm in July, 1838. The parents of the boy were church-going, conscientious, debt-abhorring folk, who preferred the independence of a few acres to a mortgaged domain. They were Americans to the backbone, intelligent, industrious people, not very poor and certainly not very rich, for at fourteen John hired out to neighboring farmers during the summer months, in order to earn his way and not be dependent upon those he loved. His father was able to attend to the little farm himself, and thus it happened that the youth spent several summers away from home, toiling from sunrise to sunset, and sharing the humble life of the people he served.

HIS EARLY DREAM AND PURPOSE

Did the tired boy, peering from his attic window, ever dream of his future?

He said to a youthful companion of Richford, a farmer's boy like himself: "I would like to own all the land in this valley, as far as I can see. I sometimes dream of wealth and power. Do you think we shall ever be worth one hundred thousand dollars, you and I? I hope to,—some day."

Who can estimate the influence such a life as this must have had upon the future multi-millionaire? I asked Mr. Rockefeller about this, and found him enthusiastic over the advantages which he had received from his rural surroundings, and full of faith in the ability of the country boy to surpass his city cousin.

"To my mind," he said, "there is something unfortunate in being born in a city. Most young men raised in New York and other large centers have not had the struggles which come to us who were reared in the country. It is a noticeable fact that the country men are crowding out the city fellows who have wealthy fathers. They are willing to do more work and go through more for the sake of winning success in the end. Sons of wealthy parents haven't a ghost of a show in competition with the fellows who come from the country with a determination to do something in the world."

The next step in the young man's life was his going to Cleveland, Ohio, in his sixteenth year.

" That was a great change in my life," said he. " Going to Cleveland was my first experience in a great city, and I shall never forget those years. I began work there as an office-boy, and learned a great deal about business methods while filling that position. But what benefited me most in going to Cleveland was the new insight I gained as to what a great place the world really is. I had plenty of ambition then, and saw that, if I was to accomplish much, I would have to work very, very hard, indeed."

SCHOOL DAYS

He found time, during the year 1854, to attend the sessions of the school which is now known as the Central High School. It was a brick edifice, surrounded by grounds which contained a number of hickory trees. It has long since been superseded by a larger and handsomer building, but Andrew J. Freese, the teacher, is still living. It is one of the proudest recollections of this delightful old gentleman's life that John D. Rockefeller went to

school with him. I visited him at his residence in Cleveland the other day, and he said:—

"John was one of the best boys I had. He was always polite, but when the other boys threw hickory clubs at him, or attempted any undue familiarities with him, he would stop smiling and sail into them. Young Hanna—Marcus A. Hanna,—who was also a pupil, learned this, to his cost, more than once, and so did young Jones, the present Nevada senator. I have had several very distinguished pupils, you see, and one of my girls is now Mrs. John D. Rockefeller. I had Edward Wolcott, the Colorado senator, later on. Yes, John was about as intelligent and well-behaved a chap as I ever had. Here is one of his essays which you may copy, if you wish."

Mr. Rockefeller, I am quite sure, will pardon me for copying his composition at this late day, for its tone and subject matter reflect credit upon him:—

"Freedom is one of the most desirable of all blessings. Even the smallest bird or insect loves to be free. Take, for instance, a robin that has always been free to fly from tree to tree, and sing its cheerful song from day to day,—catch it, and put it into a cage which is to it nothing

less than a prison, and, although it may be there tended with the choicest care, yet it is not content. How eloquently does it plead, though in silence, for liberty. From day to day it sits mournfully upon its perch, meditating, as it were, some way for its escape, and when at last this is effected, how cheerfully does it wing its way out from its gloomy prison-house to sing undisturbed in the branches of the first trees.

"If even the birds of the air love freedom, is it not natural that man, the lord of creation, should? I reply that it is, and that it is a violation of the laws of our country, and the laws of our God, that man should hold his fellowman in bondage. Yet how many thousands there are at the present time, even in our own country, who are bound down by cruel masters to toil beneath the scorching sun of the South. How can America, under such circumstances, call herself free? Is it extending freedom by granting to the South one of the largest divisions of land that she possesses for the purpose of holding slaves? It is a freedom that, if not speedily checked, will end in the ruin of our country."

It was greatly to the regret of the teacher

that John came to him one day to announce his purpose to leave school. Mr. Freese urged him to remain two years longer, in order that he might complete the course, but the young man told him he felt obliged to earn more money than he was getting, because of his desire to provide for his mother and brother. He had received an offer, he said, of a place on the freight docks as a bill clerk, and this job would take him away from his studies.

A RAFT OF HOOP POLES

A short time afterwards, when Mr. Freese visited his former pupil at the freight dock, he found the young man seated on a bale of goods, bill book and pencil in hand. Pointing to a raft of hoop poles in the water, John told his caller that he had purchased them from a Canadian who had brought them across Lake Erie, expecting to sell them. Failing in this, the owner gladly accepted a cash offer from young Rockefeller, who named a price below the usual market rates. The young man explained that he *had saved a little money out of his wages,* and that this was his first speculation. He afterwards told Mr. Freese that he rafted the pur-

chase himself to a flour mill, and disposed of his bargain at a profit of fifty dollars.[1]

THE ODOR OF OIL

It was Mr. Freese, too, who first got the young man interested in oil. They were using sperm oil in those days, at a dollar and a half a gallon. Somebody had found natural petroleum, thick, slimy, and foul-smelling, in the Pennsylvania creeks, and a quantity of it had been received in Cleveland by a next-door neighbor of the schoolmaster. The neighbor thought it could be utilized in some way, but his experiments were as crude as the ill-favored stuff itself. These consisted of boiling, burning, and otherwise testing the oil, and the only result was the incurring of the disfavor of the near-by residents. The young man became interested at once. He, too, experimented with

[1] This hoop pole story is matched by another, related by a friend, of Rockefeller's later warehouse days in Cleveland. He one day bought a lot of beans. He bought them cheap, because they were damaged. Instead of selling them at a slight advance, as most dealers would have done, he spent all his spare time, for weeks, in the attic of his warehouse, sorting over those beans. He took out all the blackened and injured ones, and in the end he got a fancy price for the remainder, because they were of extra quality.

the black slime, draining off the clearer portions and touching matches to it. The flames were sickly, yellow, and malodorous.

"*There must be some way of deodorizing this oil,*" said John, "*and I will find it.* There ought to be a good sale for it for illuminating purposes, if the good oil can be separated from the sediment, and that awful smell gotten rid of."

How well the young man profited by the accidental meeting is a matter of history. But I am digressing.

HIS FIRST LEDGER, AND THE ITEMS IN IT

While in Cleveland, slaving away at his tasks, Mr. Rockefeller was training himself for the more busy days to come. He kept a small ledger in which he entered all his receipts and expenditures, and I had the privilege of examining this interesting little book, and having its contents explained to me. It was nothing more than a small, paper-backed memorandum book.

"When I looked this book up the other day, I thought I had but the cover," said Mr. Rockefeller, "but, on examination, I perceived that I had utilized the cover to write on. In those days I was very economical, just as I am eco-

nomical now. Economy is a virtue. I hadn't seen my little ledger for a long time, when I found it among some old things. It is more than forty-two years ago since I wrote what it contains. I called it 'Ledger A,' and I wouldn't exchange it now for all the ledgers in New York city and their contents. A glance through it shows me how carefully I kept account of my receipts and disbursements. I only wish more young men could be induced to keep accounts like this nowadays. It would go far toward teaching them the value of money.

"*Every young man should take care of his money. I think it is a man's duty to make all the money he can, keep all he can, and give away all he can.* I have followed this principle religiously all my life, as is evidenced in this book. It tells me just what I did with my money during my first few years in business. Between September, 1855, and January, 1856, I received just fifty dollars. Out of this sum I paid for my washing and my board, and managed to save a little besides. I find, in looking through the book, that I gave a cent to Sunday school every Sunday. It wasn't much, but it was all that I could afford to give to that particular object. *What I could afford to give to the*

various religious and charitable works, I gave regularly. It is a good habit for a young man to get into.

"During my second year in Cleveland, I earned twenty-five dollars a month. I was beginning to be a capitalist," said Mr. Rockefeller, "and I suppose I ought to have considered myself a criminal for having so much money. I paid all my own bills at this time, and had some money to give away. I also had the happiness of saving some. I am not sure, but I was more independent then than now. I couldn't buy the most fashionable cut of clothing, but I dressed well enough. I certainly did not buy any clothes I couldn't pay for, as some young men do that I know of. I didn't make any obligations I could not meet, and *my earnest advice is for every young man to live within his means. One of the swiftest 'toboggan slides' I know of, is for a young fellow just starting out into the world to go into debt.*

"During the time between November, 1855, and April, 1856, I paid out just nine dollars and nine cents for clothing. And there is one item that was certainly extravagant as I usually wore mittens in the winter. This item is

for fur gloves, two dollars and a half. In this same period *I gave away five dollars and fifty-eight cents. In one month I gave to foreign missions, ten cents, to the mite society, fifty cents, and twelve cents to the Five Points Mission, in New York.* I wasn't living here then, of course, but I suppose I thought the Mission needed money. These little contributions of mine were not large, but they brought me into direct contact with church work, and that has been a benefit to me all my life. It is a mistake for a man to think that he must be rich to help others."

TEN THOUSAND DOLLARS

He earned and saved ten thousand dollars before he was twenty-five years old.

Before he attained his majority, Rockefeller formed a partnership with another young man named Hewett, and began a warehouse and produce business. This was the natural outgrowth of his freight clerkship on the docks. *In five years, he had amassed about ten thousand dollars* besides earning a reputation for business capacity and probity.

HE REMEMBERED THE OIL

He never forgot those experiments with the crude oil. Discoveries became more and more frequent in the Pennsylvania oil territory. There was a rush of speculators to the new land of fortune. Men owning impoverished farms suddenly found themselves rich. Thousands of excited men bid wildly against each other for newly-shot wells, paying fabulous sums occasionally for dry holes.

KEEPING HIS HEAD

John D. Rockefeller looked the entire field over carefully and calmly. Never for a moment did he lose his head. His Cleveland bankers and business friends had asked him to purchase some wells, if he saw fit, offering to back him up with $75,000 for his own investment [he was worth about $10,000 at the time], and to put in $400,000 more on his report.

The business judgment of this young man at twenty-five was so good, that his neighbors were willing to invest half a million dollars at his bidding.

He returned to Cleveland without investing a dollar. Instead of joining the mad crowd

of producers, he sagaciously determined to begin at the other end of the business,—the refining of the product.

THERE WAS MORE MONEY IN A REFINERY

The use of petroleum was dangerous at that time, on account of the highly inflammable gases it contained. Many persons stuck to candles and sperm oil through fear of an explosion if they used the new illuminant. The process of removing these superfluous gases by refining, or distilling, as it was then called, was in its infancy. There were few men who knew anything about it.

Among Rockefeller's acquaintances in Cleveland was one of these men. His name was Samuel Andrews. He had worked in a distillery, and was familiar with the process. He believed that there was a great business to be built up by removing the gases from the crude oil and making it safe for household use. Rockefeller listened to him, and became convinced that he was right. Here was a field as wide as the world, limited only by the production of crude oil. It was a proposition on which he could figure and make sure of the result. It was just the thing Rockefeller had been look-

ing for. He decided to leave the production of oil to others, and to devote his attention to preparing it for market.

Andrews was a brother commission merchant. The two started a refinery, each closing out his former business connection. In two weeks it was running night and day to fill orders. So great was the demand, and so great was the judgment of young Rockefeller,—seeing what no one else had seen.

A second refinery had to be built at once, and in two years their plants were turning out two thousand barrels of refined petroleum per day. Henry M. Flagler, already wealthy, came into the firm, the name of which then became Rockefeller, Flagler and Andrews. More refineries were built, not only at Cleveland, but also at other advantageous points. Competing refineries were bought or rendered ineffective by the cutting of prices.

It is related that Mr. Andrews became one day dissatisfied, and he was asked,—"What will you take for your interest?" Andrews wrote carelessly on a piece of paper,—"One million dollars." Within twenty-four hours he was handed that amount; Mr. Rockefeller saying,—"Cheaper at one million than ten." In

building up the refinery business Rockefeller was the head; the others were the hands. He was always the general commanding, the tactician. He made the plans and his associates carried them out. Here was the post for which he had fitted himself, and in which his genius for planning had full sway. In the conduct of the refinery affairs, as in every enterprise in which he has taken part, he exemplified another rule to which he had adhered from his boyhood days. He was the leader in whatever he undertook. In going into any undertaking, John D. Rockefeller has made it his rule to have the chief authority in his own hands or to have nothing to do with the matter.

STANDARD OIL

In 1870, when Mr. Rockefeller was thirty-two years old, the business was merged into the Standard Oil Company, starting with a capital of one million dollars. Other pens have written the later story of that great corporation; how it started pipe lines to carry the oil to the seaboard; how it earned millions in by-products which had formerly run to waste; how it covered the markets of the world in its keen search for trade, distancing all competition, and cheap-

ening its own processes so that its dividends in one year, 1899, amounted to $23,000,000 in excess of the fixed dividend upon the whole capital stock. This is the outcome of thirty years' development. The corporation is now the greatest business combination of modern times, or of any age of the world. Mr. Rockefeller's annual income from his holdings of Standard Oil stock is estimated at about sixteen millions of dollars.

MR. ROCKEFELLER'S PERSONALITY

The brains of all this, the owner of the largest percentage of the stock in the parent corporation, and in most of the lesser ones, is now sixty-two years old. His personality is simple and unaffected, his tastes domestic, and the trend of his thoughts decidedly religious. His Cleveland residential estate is superb, covering a large tract of park-like land,—but even there he has shown his unselfishness by donating a large portion of his land to the city for park purposes. His New York home is not a pretentious place,—solid, but by no means elegant in outward appearance. Between the two homes he divides his time with his wife and children. He is an earnest and hard-working

member of the Fifth Avenue Baptist Church, in New York, and does much to promote the good work carried on by that organization. He is particularly interested in the Sunday-school work.

AT THE OFFICE

He arises early in the morning, at his home, and, after a light breakfast, attends to some of his personal affairs there. He is always early on hand at the great Standard Oil building on lower Broadway, New York, and, during the day, he transacts business connected with the management of that vast corporation. There is hardly one of our business men of whom the public at large knows so little. He avoids publicity as most men would the plague. The result is that he is the only one of our very wealthy men who maintains the reputation of being different from the ordinary run of mortals. To most newspaper readers, he is a man of mystery, a sort of financial wizard who sits in his office and heaps up wealth after the fashion of Aladdin and other fairy-tale heroes.

All this is wide of the mark. It would be hard to find a more commonplace, matter-of-fact man than John D. Rockefeller. His tall

form, with the suggestion of a stoop in it, his pale, thoughtful face and reserved manner, suggest the scholar or professional man rather than an industrial Hercules or a Napoleon of finance. He speaks in a slow, deliberate manner, weighing each word. There is nothing impulsive or bombastic about him. But his conversation impresses one as consisting of about one hundred per cent. of cold, compact, boiled-down common sense.

Here is to be noted one characteristic of the great oil magnate which has helped to make him what he is. The popular idea of a multi-millionaire is a man who has taken big risks, and has come out luckily. He is a living refutation of this conception. He is careful and cautious by nature, and he has made these traits habitual for a lifetime; he conducts all his affairs on the strictest business principles.

FORESIGHT

The qualities which have made him so successful are largely those which go to the making of any successful business man,—industry, thrift, perseverance, and foresight. Three of these qualities would have made him a rich man; the last has distinguished him as the rich-

est man. One of his business associates said of him, the other day:—

"I believe the secret of his success, so far as there is any secret, lies in power of foresight, which often seems to his associates to be wonderful. It comes simply from his habit of looking at every side of a question, of weighing the favorable and unfavorable features of a situation, and of sifting out the inevitable result through his unfailing good judgment."

This is his own personal statement, put into other words, so it may be accepted as true. The encouraging part of it is that, while such foresight as Rockefeller displays may be ascribed partly to natural endowment, both he and his friend say that it is more largely a matter of habit, made effective by continual practice.

HYGIENE

At noon he takes a very simple lunch at his club, or at some downtown restaurant. The lunch usually consists of a bowl of bread and milk. He remains at the office until late in the afternoon, and before dinner he takes some exercise. *In winter, he skates when possible.* And at other seasons of the year he nearly al-

ways drives in the park or on the avenues. Mr. Rockefeller has great faith in fresh air as a tonic.

AT HOME

The evenings are nearly always spent at home, for neither Mr. Rockefeller nor any of the children are fond of " society," as the word is understood in New York. The children seem to have inherited many of their father's sensible ideas, and John D. Rockefeller, Jr., has apparently escaped the fate of most rich men's sons. He has a deep sense of responsibility as the heir-apparent to so much wealth; and, since his graduation from college, he has devoted himself to a business career, starting at the bottom and working upward, step by step. It is now generally known that he has been very successful in his business ventures, and he bids fair to become a worthy successor to his father. He is now actively engaged in important philanthropic enterprises in New York. Miss Bessie became the wife of a poor clergyman of the Baptist Church in Cleveland; while Miss Alta is married to a prominent young business man in Chicago.

PHILANTHROPY

Mr. Rockefeller has during many years turned over to his children a great many letters from needy people, asking them to exercise their own judgment in distributing charities.

While he has himself given away millions for education and charity, he would have given more were it not for his dread of seeming ostentatious. But he never gives indiscriminately, nor out of hand. When a charity appeals to him, he investigates it thoroughly, just as he would a business scheme. If he decides that its object is worthy, he gives liberally; otherwise, not a cent can be got out of him.

It may be imagined that such a man is busy to the full limit of his working capacity. This is true. He is too busy for any of the pastimes and pleasures in which most wealthy men seek diversion. He is thoroughly devoted to his home and family, and spends as much as possible of his time with them. He is a man who views life seriously, but in his quiet way he can get as much enjoyment out of a good story or a meeting with an old friend as can any other man.

John D. Rockefeller

PERSEVERANCE

When I asked Mr. Rockefeller what he considers has most helped him in obtaining success in business, he answered: "It was early training, and the fact that I was willing to persevere. I do not think there is any other quality so essential to success of any kind as the quality of perseverance. It overcomes almost everything, even nature."

It is to be said of his business enterprises, looking at them in a large way, that he has given to the world good honest oil, of standard quality; that his employees are always well paid; that he has given away more money in benevolence than any other business man in America. And everything about the man indicates that he is likely to "persevere" in the course he has so long pursued, turning his vast wealth into institutes for public service.

A GENIUS FOR MONEY MAKING

"There are men born with a genius for money-making," says Mathews. "They have the instinct of accumulation. The talent and the inclination to convert dollars into doubloons by bargains or shrewd investments are in them just as strongly marked and as uncontrollable

as were the ability and the inclination of Shakespeare to produce Hamlet and Othello, of Raphael to paint his cartoons, of Beethoven to compose his symphonies, or Morse to invent an electric telegraph. As it would have been a gross dereliction of duty, a shameful perversion of gifts, had these latter disregarded the instincts of their genius and engaged in the scramble for wealth, so would a Rothschild, an Astor, and a Peabody have sinned had they done violence to their natures, and thrown their energies into channels where they would have proved dwarfs and not giants."

The opportunity which came to young Rockefeller does not occur many times in many ages: and in a generous interpretation of his opportunity he has already invested a great deal of his earnings in permanently useful philanthropies.

XIII

The Author of the Battle Hymn of the Republic--Her Views of Education for Young Women

A POET, author, lecturer, wit and conversationalist, Mrs. Julia Ward Howe unites with the attributes of a tender, womanly nature—which has made her the idol of her husband and children—the sterner virtues of a reformer; the unflinching courage which dares to stand with a small minority in the cause of right; the indomitable perseverance and force of character which persist in the demand for justice in face of the determined opposition of narrow prejudice and old-time conservatism.

Although more Bostonian than the Bostonians themselves, Mrs. Howe first saw the light in New York, and has spent much of her later

life at Newport. Born in 1819, in a stately mansion near the Bowling Green, then the most fashionable quarter of New York, she was the fourth child of Samuel Ward and Julia Cutler Ward, people of unusual culture, refinement, and high ideals. Mr. Ward was a man of spotless honor and business integrity; and, although not wealthy as compared with the millionaires of to-day, his fortune was ample enough to surround his wife and children with all the luxuries and refinements that the most fastidious nature could crave. Mrs. Ward possessed a rare combination of personal charms and mental gifts, which endeared her to all who had the privilege of knowing her. All too soon, the death angel came and bore away the lovely young wife and mother, then in her twenty-eighth year.

Rousing himself, with a great effort, from the grief into which the death of his wife had plunged him, Mr. Ward devoted himself to the training, and education of his children. Far in advance of his age in the matter of higher education for women he selected as the tutor of his daughters the learned Doctor Joseph Green Cogswell, with instruction to teach them the full curriculum of Harvard college.

"LITTLE MISS WARD"

The scholarly and refined atmosphere of her father's home, which was the resort of the most distinguished men of letters of the day, was an admirable school for the development of the literary and philosophic mind of the "little Miss Ward," as Mr. Ward's eldest daughter had been called from childhood.

Learned even beyond advanced college graduates of to-day, an accomplished linguist, a musical amateur of great promise, the young and beautiful Miss Julia Ward, of Bond street, soon became a leader of the cultured and fashionable circle in which she moved. In the series, "Authors at Home," by M. C. Sherwood, we get a glimpse of her, about that time, in a whimsical entry from the diary of a Miss Hamilton, written at the time of the return of Doctor Howe, from Greece, whither he had gone to fight the Turks:—

"I walked down Broadway with all the fashion and met the pretty blue stocking, Miss Julia Ward, with her admirer, Doctor Howe, just home from Europe. She had on a blue satin cloak and a white muslin dress. I looked to see if she had on blue stockings, but I think

not. I suspect that her stockings were pink, and she wore low slippers, as grandmamma does. They say she dreams in Italian and quotes French verses. She sang very prettily at a party last evening. I noticed how white her hands were. Still, though attractive, the muse is not handsome."

SHE MARRIED A REFORMER

Soon after the loss of her father, in 1839, Miss Ward paid the first of a series of visits to Boston, where she met, among other distinguished people who became life-long friends, Sarah Margaret Fuller, Horace Mann, Charles Sumner, and Ralph Waldo Emerson. In 1843 she was married to the director of the institute for the blind, in South Boston, the physician and reformer, Doctor Samuel G. Howe, of whom Sydney Smith spoke—referring to the remarkable results attained in his education of Laura Bridgman,—as "a modern Pygmalion who has put life into a statue." Immediately after their marriage, Doctor and Mrs. Howe sailed for Europe, making London their first stopping place. There they met many famous men and women, among them Charles Dickens,

Thomas Carlyle, Sydney Smith, Thomas Moore, the Duchess of Sutherland, John Forster, Samuel Rogers, Richard Monckton Milnes, and many others. After an extensive continental tour, including the Netherlands, Switzerland, Germany, France, and Italy, Doctor and Mrs. Howe returned home and took up their residence in South Boston.

One of her friends has said: "Mrs. Howe wrote leading articles from her cradle;" and it is true that at seventeen, at least, she was an anonymous but valued contributor to the *New York Magazine,* then a prominent periodical. In 1854, her first volume of poems was published. She named it "Passion Flowers," and the Boston world of letters hailed her as a new poet. Though published anonymously, the volume at once revealed its author; and Mrs. Howe was welcomed into the poetic fraternity by such shining lights as Emerson, Whittier, Longfellow, Bryant, and Holmes. The poem by which the author will be forever enshrined in her country's memory is, *par excellence,* "The Battle Hymn of the Republic," which, like Kipling's "Recessional," sang itself at once into the heart of the nation. As any sketch of Mrs. Howe would be incomplete

without the story of the birth of this great song of America, it is here given in brief.

STORY OF THE "BATTLE HYMN OF THE REPUBLIC"

It was in the first year of our Civil War that Mrs. Howe, in company with her husband and friends, visited Washington. During their stay in that city, the party went to see a review of troops, which, however, was interrupted by a movement of the enemy, and had to be put off for the day. The carriage in which Mrs. Howe was seated with her friends was surrounded by armed men; and, as they rode along, she began to sing, to the great delight of the soldiers, "John Brown." "Good for you!" shouted the boys in blue, who, with a will, took up the refrain. Mrs. Howe then began conversing with her friends on the momentous events of the hour, and expressed the strong desire she felt to write some words which might be sung to this stirring tune, adding that she feared she would never be able to do so. "She went to sleep," says her daughter, Maude Howe Eliot, "full of thoughts of battle, and awoke before dawn the next morning to find the desired verses immediately pres-

ent to her mind. She sprang from her bed, and in the dim gray light found a pen, and paper, whereon she wrote, scarcely seeing them, the lines of the poem. Returning to her couch, she was soon asleep, but not until she had said to herself, 'I like this better than anything I have ever written before.'"

"EIGHTY YEARS YOUNG"

Of Mrs. Howe it may very fittingly be said that she is eighty years young. Her blue eye retains its brightness, and her dignified carriage betokens none of the feebleness of age. Above all, her mind seems to hold, in a marvelous degree, its youthful vigor and elasticity; a fact that especially impressed me as the author of "The Battle Hymn of the Republic" expressed her views on the desirability of a college training for girls.

"The girls who go to college," said Mrs. Howe, "are very much in request, I should say for everything,—certainly for teaching. Then, naturally, if they wish to follow literature, they have a very great advantage over those who have not had the benefit of a college course, having a liberal education to begin with."

"Which is the greater advantage to a girl, to have talent or great perseverance?"

"In order to accomplish anything really worth doing, I think great perseverance is of the first importance. On the other hand, one cannot do a great deal without talent, while special talent without perseverance never amounts to much. I once heard Mr. Emerson say, 'Genius without character is mere friskiness;' and we all know of highly gifted people, who, because lacking the essential quality of perseverance, accomplish very little in the world."

"Do you think the college girl will exercise a greater influence on modern progress and the civilization of the future than her untrained sister?"

"Oh, very much greater," was the quick, emphatic reply. "In the first place, I think that college-bred girls are quite as likely to marry as others, and when a college girl marries, then the whole family is lifted to a higher plane, the natural result of the well-trained, cultivated mind. Mothers of old, you know, were very ignorant. Indeed, it is sad to think what few advantages they had. Of course, some of them had opportunities to study alone,

but this solitary study could not accomplish for them what the colleges, with their corps of specialists and trained professors, are doing for the young women of to-day."

THE IDEAL COLLEGE

Speaking of the advantages and disadvantages of coeducational institutions, Mrs. Howe said:—

"While there are many advantages in coeducation, there are also some dangers. The great advantage consists in the mingling of both sorts of mind, the masculine and the feminine. This gives a completeness that cannot otherwise be obtained. I have observed that when committees are made up of both men and women, we get a roundness and completeness that are lacking when the membership is composed of either sex alone; and so in college recitations, where the boys present their side and the girls theirs, we get better results. This, of course, is natural. Fortunately, so far, scandals have been very rare, if found at all, in coeducation at colleges. Many people, however, would not care to trust their children, nor would we send every girl, to such colleges; and, for this reason, I am glad that we have

women's colleges. I think, however, that, if the students are at all earnest, and have high ideals set before them, the coeducational is the ideal college; for the course in these colleges is like a great intellectual race, which arouses and stimulates all the nobler faculties."

"What influence do you think environment has on one's career,—on success in life?"

"What do you mean by environment?"

"Well, I mean especially the sort of people with whom one is associated; their order of mind?"

"I think it has a very important effect. If we are kept perpetually under lowering influences—lowering both morally and æsthetically,—the tendency will inevitably be to drag us down. I say æsthetically, because I think in that sense good taste is a part of good morals. You can, of course, have good taste without good morals; but with morality there is a certain feeling or measure of reserve and nicety which does not accompany good taste without good morals. You know St. Paul says: 'Evil communications corrupt good manners.' That is as true to-day as it ever was. We can't always be with our equals or our superiors, however; we must take people as we find them.

But we should try to be with people who stand for high things, morally and intellectually. Then, when we have to be among people of a lower grade, we can help them, because I think human nature, on the whole, desires to be elevated rather than lowered."

"Do you think it is necessary to success in life to have a special aim?"

"I think it is a great thing to have a special aim or talent, and it is better to make one thing the leading interest in life than to run after half-a-dozen."

XIV

A TALK WITH EDISON

DRAMATIC INCIDENTS IN HIS EARLY LIFE

TO discover the opinion of Thomas A. Edison concerning what makes and constitutes success in life is an easy matter—if one can first discover Mr. Edison. I camped three weeks in the vicinity of Orange, N. J., awaiting the opportunity to come upon the great inventor and voice my questions. It seemed a rather hopeless and discouraging affair until he was really before me; but, truth to say, he is one of the most accessible of men, and only reluctantly allows himself to be hedged in by pressure of endless affairs.

" Mr. Edison is always glad to see any visitor," said a gentleman who is continually with him, " except when he is hot on the trail of something he has been working for, and then it is as much as a man's head is worth to come in on him."

He certainly was not hot on the trail of anything on the morning when, for the tenth time,

I rang at the gate in the fence which surrounds the laboratory on Valley Road, Orange. A young man appeared, who conducted me up the walk to the Edison laboratory office.

THE LIBRARY

is a place not to be passed through without thought, for, with a further store of volumes in his home, it contains one of the most costly and well-equipped scientific libraries in the world; the collection of writings on patent laws and patents, for instance, is absolutely exhaustive. It gives, at a glance, an idea of the breadth of thought and sympathy of this man who grew up with scarcely a common school education.

On the second floor, in one of the offices of the machine-shop, I was asked to wait, while a grimy youth disappeared with my card, which he said he would "slip under the door of Mr. Edison's office."

"Curious," I thought; "what a lord this man must be if they dare not even knock at his door!"

Thinking of this and gazing out the window, I waited until a working man, who had entered softly, came up beside me. He looked with a

sort of "Well, what is it?" in his eyes, and quickly it began to come to me that the man in the sooty, oil-stained clothes was Edison himself. The working garb seemed rather incongruous, but there was no mistaking the broad forehead, with its shock of blackish hair streaked with gray. The gray eyes, too, were revelations in the way of alert comprehensiveness.

"Oh!" was all I could get out at the time.

"Want to see me?" he said, smiling in the most youthful and genial way.

"Why,—yes, certainly, to be sure," I stammered.

He looked at me blankly.

"You'll have to talk louder," said an assistant who worked in another portion of the room; "he don't hear well."

This fact was new to me, but I raised my voice with celerity, and piped thereafter in an exceedingly shrill key. After the usual humdrum opening remarks, in which he acknowledged his age as fifty-two years, and that he was born in Erie county, O., of Dutch parentage, the family having emigrated to America in 1730, the particulars began to grow more interesting.

His great-grandfather, I learned, was a banker of high standing in New York; and, when Thomas was but a child of seven years, the family fortune suffered reverses so serious as to make it necessary that he should become a wage-earner at an unusually early age, and that the family should move from his birthplace to Michigan.

"Did you enjoy mathematics as a boy?" I asked.

"Not much," he replied. "I tried to read Newton's 'Principia,' at the age of eleven. That disgusted me with pure mathematics, and I don't wonder now. I should not have been allowed to take up such serious work."

"You were anxious to learn?"

"Yes, indeed, *I attempted to read through the entire Free Library at Detroit,* but other things interfered before I had done."

A CHEMICAL NEWSBOY

"Were you a book-worm and dreamer?" I questioned.

"Not at all," he answered, using a short, jerky method, as though he were unconsciously checking himself up. "I became a newsboy,

and liked the work. Made my first *coup* as a newsboy in 1869."

"What was it?" I ventured.

"I bought up on 'futures' a thousand copies of the *Detroit Free Press* containing important war news,—gained a little time on my rivals, and sold the entire batch like hot cakes. The price reached twenty-five cents a paper before the end of the route," and he laughed. "I ran the *Grand Trunk Herald,* too, at that time—a little paper I issued from the train."

"When did you begin to be interested in invention?" I questioned.

"Well," he said, "I began to dabble in chemistry at that time. I fitted up a small laboratory on the train."

In reference to this, Mr. Edison subsequently admitted that, during the progress of some occult experiments in this workshop, certain complications ensued in which a jolted and broken bottle of sulphuric acid attracted the attention of the conductor. He, who had been long suffering in the matter of unearthly odors, promptly ejected the young devotee and all his works. This incident would have been only amusing but for its relation to, and explanation of, his deafness. A box on the ear, adminis-

tered by the irate conductor, caused the lasting deafness.

TELEGRAPHY

"What was your first work in a practical line?" I went on.

"A telegraph line between my home and another boy's, I made with the help of an old river cable, some stove-pipe wire, and glass-bottle insulators. I had my laboratory in the cellar and studied telegraphy outside."

"What was the first really important thing you did?"

"I saved a boy's life."

"How?"

"The boy was playing on the track near the depot. I saw he was in danger and caught him, getting out of the way just in time. His father was station-master, and taught me telegraphy in return."

Dramatic situations appear at every turn of this man's life. He seems to have been continually arriving on the scene at critical moments, and always with the good sense to take things in his own hands. The chance of learning telegraphy only gave him a chance to show how apt a pupil he was, and the railroad com-

pany soon gave him regular employment. At seventeen, he had become one of the most expert operators on the road.

"Did you make much use of your inventive talent at this time?" I questioned.

"Yes," he answered. "I invented an automatic attachment for my telegraph instrument which would send in the signal to show I was awake at my post, when I was comfortably snoring in a corner. I didn't do much of that, though," he went on; " for some such boyish trick sent me in disgrace over the line into Canada."

"Were you there long?"

"Only a winter. If it's incident you want, I can tell you one of that time. The place where I was and Sarnier, the American town, were cut off from telegraphic and other means of communication by the storms, until I got at a locomotive whistle and tooted a telegraphic message. I had to do it again and again, but eventually they understood over the water and answered in the same way."

According to his own and various recorded accounts, Edison was successively in charge of important wires in Memphis, Cincinnati, New Orleans, and Louisville. He lived in the free-

and-easy atmosphere of the tramp operators—a boon companion with them, yet absolutely refusing to join in the dissipations to which they were addicted. So highly esteemed was he for his honesty, that it was the custom of his colleagues, when a spree was on hand, to make him the custodian of those funds which they felt obliged to save. On a more than usually hilarious occasion, one of them returned rather the worse for wear, and knocked the treasurer down on his refusal to deliver the trust money; the other depositors, we may be glad to note, gave the ungentlemanly tippler a sound thrashing.

HIS USE OF MONEY

"Were you good at saving your own money?" I asked.

"No," he said, smiling. "I never was much for saving money, as money. I devoted every cent, regardless of future needs, to scientific books and materials for experiments."

"You believe that an excellent way to succeed?"

"Well, it helped me greatly to future success."

INVENTIONS

"What was your next invention?" I inquired.

"An automatic telegraph recorder—a machine which enabled me to record dispatches at leisure, and send them off as fast as needed."

"How did you come to hit upon that?"

"Well, at the time, I was in such straits that I had to walk from Memphis to Louisville. At the Louisville station they offered me a place. I had perfected a style of handwriting which would allow me to take legibly from the wire, long hand, forty-seven and even fifty-four words a minute, but I was only a moderately rapid sender. I had to do something to help me on that side, and so I thought out that little device."

Later I discovered an article by one of his biographers, in which a paragraph referring to this Louisville period, says:—

"True to his dominant instincts, he was not long in gathering around him a laboratory, printing office, and machine shop. He took press reports during his whole stay, including on one occasion, the Presidential message, by Andrew Johnson, and this at one sitting, from 3.30 P. M. to 4.30 A. M.

"He then paragraphed the matter he had received over the wires, so that printers had exactly three lines each, thus enabling them to set up a column in two or three minutes' time. For this, he was allowed all the exchanges he desired, and the Louisville press gave him a dinner."

"How did you manage to attract public attention to your ability?" I questioned.

"I didn't manage," said the Wizard. "Some things I did created comment. A device that I invented in 1868, which utilized one sub-marine cable for two circuits, caused considerable talk, and the Franklin telegraph office of Boston gave me a position."

It is related of this, Mr. Edison's first trip East, that he came with no ready money and in a rather dilapidated condition. His colleagues were tempted by his "hayseed" appearance to "salt" him, as professional slang terms the process of giving a receiver matter faster than he can record it. For this purpose, the new man was assigned to a wire manipulated by a New York operator famous for his speed. But there was no fun at all. Notwithstanding the fact that the New Yorker was in the game and was doing his most speedy

clip, Edison wrote out the long message accurately, and, when he realized the situation, was soon firing taunts over the wire at the sender's slowness.

" Had you patented many things up to the time of your coming East? " I queried.

" Nothing," said the inventor, ruminatively. " I received my first patent in 1869."

" For what? "

" A machine for recording votes, and designed to be used in the State Legislature."

" I didn't know such machines were in use," I ventured.

" They ar'n't," he answered, with a merry twinkle. " The better it worked, the more impossible it was; the sacred right of the minority, you know,—couldn't filibuster if they used it,—didn't use it."

" Oh! "

" Yes, it was an ingenious thing. Votes were clearly pointed and shown on a roll of paper, by a small machine attached to the desk of each member. I was made to learn that such an innovation was out of the question, but it taught me something."

" And that was? "

" To be sure of the practical need of, and de-

mand for, a machine, before expending time and energy on it."

"Is that one of your maxims of success?"

"It is. It is a good rule to give people something they want, and they will pay money to get it."

HIS ARRIVAL AT THE METROPOLIS

In this same year, Edison removed from Boston to New York, friendless and in debt on account of the expenses of his experiment. For several weeks he wandered about the town with actual hunger staring him in the face. It was a time of great financial excitement, and with that strange quality of Fortunism, which seems to be his chief characteristic, he entered the establishment of the Law Gold Reporting Company just as their entire plant had shut down on account of an accident in the machinery that could not be located. The heads of the firm were anxious and excited to the last degree, and a crowd of the Wall street fraternity waited about for the news which came not. The shabby stranger put his finger on the difficulty at once, and was given lucrative employment. In the rush of the metropolis, a man finds his true level without delay es-

pecially when his talents are of so practical and brilliant a nature as were this young telegrapher's. It would be an absurdity to imagine an Edison hidden in New York. Within a short time, he was presented with a check for $40,000, as his share of a single invention—an improved stock printer. From this time, a national reputation was assured him. He was, too, now engaged upon the duplex and quadruplex systems—systems for sending two and four messages at the same time over a single wire,—which were to inaugurate almost a new era in telegraphy.

MENTAL CONCENTRATION

Recalling the incident of the Law Gold Reporting Company, I inquired: "Do you believe want urges a man to greater efforts, and so to greater success?"

"It certainly makes him keep a sharp lookout. I think it does push a man along."

"Do you believe that invention is a gift, or an acquired ability?"

"I think it's born in a man."

"And don't you believe that familiarity with certain mechanical conditions and defects naturally suggests improvements to any one?"

" No. Some people may be perfectly familiar with a machine all their days, knowing it inefficient, and never see a way to improve it."

" What do you think is the first requisite for success in your field, or any other? "

" *The ability to apply your physical and mental energies to one problem incessantly without growing weary.*"

TWENTY HOURS A DAY

" Do you have regular hours, Mr. Edison? " I asked.

" Oh," he said, " I do not work hard now. I come to the laboratory about eight o'clock every day and go home to tea at six, and then I study or work on some problem until eleven, which is my hour for bed."

" Fourteen of fifteen hours a day can scarcely be called loafing," I suggested.

" Well," he replied, " for fifteen years I have worked on an average of twenty hours a day."

When he was forty-seven years old, he estimated his true age at eighty-two, since working only eight hours a day would have taken till that time.

Mr. Edison has sometimes worked sixty consecutive hours upon one problem. Then

after a long sleep, he was perfectly refreshed and ready for another.

A RUN FOR BREAKFAST

Mr. Dickson, a neighbor and familiar, gives an anecdote told by Edison which well illustrates his untiring energy and phenomenal endurance. In describing his Boston experience, Edison said he bought Faraday's works on electricity, commenced to read them at three o'clock in the morning and continued until his room-mate arose, when they started on their long walk to get breakfast. That object was entirely subordinated in Edison's mind to Faraday, and he suddenly remarked to his friend: "'Adams, I have got so much to do, and life is so short, that I have got to hustle,' and with that I started off on a dead run for my breakfast."

"I've known Edison since he was a boy of fourteen," said another friend; "and of my own knowledge I can say he never spent an idle day in his life. Often, when he should have been asleep, I have known him to sit up half the night reading. He did not take to novels or wild Western adventures, but read works on mechanics, chemistry, and electricity; and he

mastered them too. But in addition to his reading, which he could only indulge in at odd hours, he carefully cultivated his wonderful powers of observation, till at length, when he was not actually asleep, it may be said he was learning all the time."

NOT BY ACCIDENT AND NOT FOR FUN

"Are your discoveries often brilliant intuitions? Do they come to you while you are lying awake nights?" I asked him.

"I never did anything worth doing by accident," he replied, "nor did any of my inventions come indirectly through accident, except the phonograph.[1] No, when I have fully decided that a result is worth getting, I go about it, and make trial after trial, until it comes.

[1] "I was singing to the mouthpiece of a telephone," said Edison, "when the vibrations of my voice caused a fine steel point to pierce one of my fingers held just behind it. That set me to thinking. If I could record the motions of the point and send it over the same surface afterward, I saw no reason why the thing would not talk. I determined to make a machine that would work accurately, and gave my assistants the necessary instructions, telling them what I had discovered. That's the whole story. The phonograph is the result of the pricking of a finger."

"I have always kept," continued Mr. Edison, "strictly within the lines of commercially useful inventions. I have never had any time to put on electrical wonders, valuable only as novelties to catch the popular fancy."

"I LIKE IT—I HATE IT"

"What makes you work?" I asked with real curiosity. "What impels you to this constant, tireless struggle? You have shown that you care comparatively nothing for the money it makes you, and you have no particular enthusiasm for the attending fame. What is it?"

"I like it," he answered, after a moment of puzzled expression. "I don't know any other reason. Anything I have begun is always on my mind, and I am not easy while away from it, until it is finished; and then I hate it."

"Hate it?" I said.

"Yes," he affirmed, "when it is all done and is a success, I can't bear the sight of it. I haven't used a telephone in ten years, and I would go out of my way any day to miss an incandescent light." [1]

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[1] "After I have completed an invention," remarked Edison, upon another occasion, "I seem to lose interest

DOING ONE THING EIGHTEEN HOURS IS THE SECRET

"You lay down rather severe rules for one who wishes to succeed in life," I ventured, "working eighteen hours a day."

"Not at all," he said. "You do something all day long, don't you? Every one does. If you get up at seven o'clock and go to bed at eleven, you have put in sixteen good hours, and it is certain with most men, that they have been doing something all the time. They have been either walking, or reading, or writing, or thinking. The only trouble is that they do it about a great many things and I do it about one. If they took the time in question and applied it in one direction, to one object, they would succeed. Success is sure to follow such

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in it. One might think that the money value of an invention constitutes its reward to the man who loves his work. But, speaking for myself, I can honestly say this is not so. Life was never more full of joy to me, than when, a poor boy, I began to think out improvements in telegraphy, and to experiment with the cheapest and crudest appliances. But now that I have all the appliances I need, and am my own master, I continue to find my greatest pleasure, and so my reward, in the work that precedes what the world calls success."

application. The trouble lies in the fact that people do not have an object—one thing to which they stick, letting all else go. Success is the product of the severest kind of mental and physical application."

POSSIBILITIES IN THE ELECTRICAL FIELD

"You believe, of course," I suggested, "that much remains to be discovered in the realm of electricity?"

"It is the field of fields," he answered. "We can't talk of that, but it holds the secrets which will reorganize the life of the world."

"You have discovered much about it," I said, smiling.

"Yes," he said, "and yet very little in comparison with the possibilities that appear."

ONLY SIX HUNDRED INVENTIONS

"How many inventions have you patented?"

"Only six hundred," he answered, "but I have made application for some three hundred more."

"And do you expect to retire soon, after all this?"

"I hope not," he said, almost pathetically.

"I hope I will be able to work right on to the close. I shouldn't care to loaf."

HIS COURTSHIP AND HIS HOME

The idea of the great electrician's marrying was first suggested by an intimate friend, who told him that his large house and numerous servants ought to have a mistress. Although a very shy man, he seemed pleased with the proposition, and timidly inquired whom he should marry. The friend, annoyed at his apparent want of sentiment, somewhat testily replied,—"Anyone." But Edison was not without sentiment when the time came. One day, as he stood behind the chair of a Miss Stillwell, a telegraph operator in his employ, he was not a little surprised when she suddenly turned round and said:

"Mr. Edison, I can always tell when you are behind me or near me."

It was now Miss Stillwell's turn to be surprised, for, with characteristic bluntness and ardor, Edison fronted the young lady, and, looking her full in the face, said:

"I've been thinking considerably about you of late, and, if you are willing to marry me, I would like to marry you."

The young lady said she would consider the matter, and talk it over with her mother. The result was that they were married a month later, and the union proved a very happy one.

It was in fact no more an accident than other experiments in the Edison laboratory—his bride having been long the subject of the Wizzard's observation—her mental capacity, her temper and temperament, her aptitude for home-making being duly tested and noted.

General Lew Wallace in his study.

(*See page 241.*)

XV

A FASCINATING STORY

BY GENERAL LEW WALLACE

IN his study, a curiously-shaped building lighted from the top, and combining in equal portions the Byzantine, Romanesque and Doric styles of architecture, the gray-haired author of "Ben-Hur," surrounded by his pictures, books, and military trophies, is spending, in serene and comfortable retirement, the evening of his life. As I sat beside him, the other day, and listened to the recital of his earlier struggles and later achievements, I could not help contrasting his dignified bearing, careful expression, and gentle demeanor, with another occasion in his life, when, as a vigorous, black-haired young military officer, in the spring of 1861, he appeared, with flashing eye and uplifted sword, at the head of his regiment, the gallant and historic Eleventh Indiana Volunteers.

General Wallace never repels a visitor, and his greeting is cordial and ingenuous.

"If I could say anything to stimulate or encourage the young men of to-day," he said, "I would gladly do so, but I fear that the story of my early days would be of very little interest or value to others. So far as school education is concerned, it may be truthfully said that I had but little, if any; and if, in spite of that deficiency, I ever arrived at proficiency, I reached it, I presume, as Topsy attained her stature,—'just growed into it.'"

A BOYHOOD OF WASTED OPPORTUNITIES

"Were you denied early school advantages?" I asked.

"Not in the least. On the contrary, I had most abundant opportunity in that respect.

"My father was a lawyer, enjoying a lucrative practice in Brookville, Indiana,—a small town which bears the distinction of having given to the world more prominent men than any other place in the Hoosier State. Not long after my birth, he was elected lieutenant-governor, and, finally, governor of the state. He, himself, was an educated man, having been

graduated from the United States Military Academy at West Point, and having served as instructor in mathematics there. He was not only an educated man, but a man of advanced ideas generally, as shown by the fact that *he failed of a re-election to congress in* 1840, *because, as a member of the committee on commerce, he gave the casting vote in favor of an appropriation to develop Morse's magnetic telegraph.*

"Of course, he believed in the value, and tried to impress upon me the necessity of a thorough school training. But, in the face of all the solicitude and encouragement which an indulgent father could waste on an unappreciative son, I remained vexatiously indifferent. I presume I was like some man in history,—it was Lincoln, I believe,—who said that his father taught him to work, but he never quite succeeded in teaching him to love it.

"My father sent me to school, and regularly paid tuition,—for in those days there were no free schools; but, much to my discredit, he failed to secure anything like regular attendance at recitations, or even a decent attempt to master my lessons at any time. In fact, much of the time that should have been given to

school was spent in fishing, hunting, and roaming through the woods."

HIS BOYHOOD LOVE FOR HISTORY AND LITERATURE

"But were you thus indifferent to all forms of education?"

"No, my case was not quite so hopeless as that. I did not desert the schools entirely, but my attendance was so provokingly irregular and my indifference so supreme, I wonder now that I was tolerated at all. But I had one mainstay; I loved to read. I was a most inordinate reader. In some lines of literature, especially history and some kinds of fiction, my appetite was insatiate, and many a day, while my companions were clustered together in the old red brick schoolhouse, struggling with their problems in fractions or percentage, I was carefully hidden in the woods near by, lying upon my elbows, munching an apple, and reveling in the beauties of Plutarch, Byron or Goldsmith."

"Did you not attend college, or the higher grade of schools?"

"Yes, for a brief period. My brother was a student in Wabash College,—here in Craw-

fordsville,—and hither I also was sent; but within six weeks I had tired of the routine, was satiated with discipline, and made my exit from the institution.

"I shall never forget what my father did when I returned home. He called me into his office, and, reaching into one of the pigeon-holes above his desk, withdrew therefrom a package of papers neatly folded and tied with the conventional red tape. He was a very systematic man, due, perhaps, to his West Point training, and these papers proved to be the receipts for my tuition, which he had carefully preserved. He called off the items, and asked me to add them together. The total, I confess, staggered me.

A FATHER'S FRUITFUL WARNING

"'That sum, my son,' he said, with a tone of regret in his voice, 'represents what I have expended in these many years past to provide you with a good education. How successful I have been, you know better than anyone else.'

"'After mature reflection, I have come to the conclusion that I have done for you in that direction all that can reasonably be expected of any parent; and I have, therefore, called you in

to tell you that you have now reached an age when you must take up the lines yourself. If you have failed to profit by the advantages with which I have tried so hard to surround you, the responsibility must be yours. I shall not upbraid you for your neglect, but rather pity you for the indifference which you have shown to the golden opportunities you have, through my indulgence, been enabled to enjoy.' "

A MANHOOD OF SPLENDID EFFORT

"What effect did his admonition have on you? Did it awaken or arouse you?"

"It aroused me, most assuredly. It set me to thinking as nothing before had done. The next day, I set out with a determination to accomplish something for myself. My father's injunction rang in my ears. New responsibilities rested on my shoulders, as I was, for the first time in my life, my own master. I felt that I must get work on my own account.

"After much effort, I finally obtained employment from the man with whom I had passed so many afternoons strolling up and down the little streams in the neighborhood, trying to fish. He was the county clerk, and

he hired me to copy what was known as the complete record of one of the courts. I worked for months in a dingy, half-lighted room, receiving for my pay something like ten cents per hundred words. The tediousness and

THE RECULARITY OF THE WORK WAS A SPLENDID DRILL FOR ME,

and taught me the virtue of persistence as one of the avenues of success. It was at this time I began to realize *the deficiency in my education,* especially as I had an ambition to become a lawyer. Being deficient in both mathematics and grammar, *I was forced to study evenings.* Of course, the latter was a very exacting study, after a full day's hard work; but I was made to realize that *the time I had spent with such lavish prodigality could not be recovered,* and that I must extract every possible good out of the golden moments then flying by all too fast."

SELF-EDUCATION BY READING AND LITERARY COMPOSITION

"Had you a distinct literary ambition at that time?"

"Well, I had always had a sort of literary

bent or inclination. I read all the literature of the day, besides the standard authors, and finally began to devote my odd moments to a book of my own,—a tale based on the days of the crusades. When completed, it covered about three hundred and fifty pages, and bore the rather high-sounding title, 'The Man-at-Arms.' I read a good portion of it before a literary society to which I belonged; the members applauded it, and I was frequently urged to have it published.

"The Mexican War soon followed, however, and I took the manuscript with me when I enlisted. But before the close of my service it was lost, and my production, therefore, never reached the public eye."

"But did not the approval which the book received from the few persons who read it encourage you to continue writing?"

"Fully fifty years have elapsed since then, and it is, therefore, rather difficult, at this late day, to recall just how such things affected me. I suppose I was encouraged thereby, for, in due course of time, another book which turned out to be

my first book to reach the public,—began to shape itself in my mind. The composition of this work was not, as the theatrical people would say, a continuous performance, for there were many and singular interruptions; and it would be safe to say that months, and, in one case, years, intervened between certain chapters. A few years after the war, I finished the composition, strung the chapters into a continuous narrative, leveled up the uneven places, and started East with the manuscript. A letter from Whitelaw Reid, then editor of the New York *Tribune*, introduced me to the head of one of the leading publishing houses in Boston. There I was kindly received, and delivered my manuscript, which was referred to a professional reader, to determine its literary, and also, I presume, its commercial value.

"It would be neither a new nor an interesting story to acquaint the public with the degree of anxious suspense that pervaded my mind when I withdrew to await the reader's judgment. Every other writer has, I assume, at one time or another, undergone much the same ex-

perience. It was not long until I learned from the publisher that the reader reported in favor of my production. Publication soon followed, and for the first time, in a literary sense, I found myself before the public, and my book before the critics."

THE ORIGIN OF "BEN-HUR"

"How long after this did 'Ben-Hur' appear, and what led you to write it?"

"I began 'Ben-Hur' about 1876, and it was published in 1880. The purpose, at first, was a short serial for one of the magazines, descriptive of the visit of the wise men to Jerusalem as mentioned in the first two verses of the second chapter of Matthew. It will be recognized in 'Book First' of the work as now published. For certain reasons, however, the serial idea was abandoned, and the narrative, instead of ending with the birth of the Saviour, expanded into a more pretentious novel and only ended with the death scene on Calvary. The last ten chapters were written in the old adobe palace at Santa Fé, New Mexico, where I was serving as governor.

"It is difficult to answer the question, 'what led me to write the book;' or why I chose a

piece of fiction which used Christ as its leading character. In explanation, it is proper to state that I had reached an age in life when men usually begin to study themselves with reference to their fellowmen, and reflect on the good they may have done in the world. *Up to that time, never having read the Bible,* I knew nothing about sacred history; and, in matters of a religious nature, although I was not in every respect an infidel, I was persistently and notoriously indifferent. *I did not know, and therefore, did not care.* I resolved to begin the study of the good book in earnest.

INFLUENCE OF THE STORY OF THE CHRIST UPON THE AUTHOR

"I was in quest of knowledge, but I had no faith to sustain, no creed to bolster up. The result was that the whole field of religious and biblical history opened up before me; and, my vision not being clouded by previously formed opinions, I was enabled to survey it without the aid of lenses. I believe I was thorough and persistent. I know I was conscientious in my search for the truth. I weighed, I analyzed, I counted and compared. The evolution from conjecture into knowledge, through opinion

and belief, was gradual but irresistible; and at length I stood firmly and defiantly on the solid rock.

"Upward of seven hundred thousand copies of 'Ben-Hur' have been published, and it has been translated into all languages from French to Arabic. But, whether it has ever influenced the mind of a single reader or not, I am sure its conception and preparation—if it has done nothing more—have convinced its author of the divinity of the lowly Nazarene who walked and talked with God."

XVI

Carnegie as a Metal Worker

"THERE is no doubt," said Mr. Carnegie, in reply to a question from me, "that it is becoming harder and harder, as business gravitates more and more to immense concerns, for a young man without capital to get a start for himself, and in the large cities it is especially so, where large capital is essential. Still it can be honestly said that there is no other country in the world, where able and energetic young men and women can so readily rise as in this. A president of a business college informed me, recently, that he has never been able to supply the demand for capable, first-class [Mark the adjective.] bookkeepers, and his college has over nine hundred students. In America, young men of ability rise with most astonishing rapidity."

"As quickly as when you were a boy?"

"Much more so. When I was a boy, there were but very few important positions that a boy could aspire to. Every position had to be made. Now a boy doesn't need to make the place,—all he has to do is to fit himself to take it."

EARLY WORK AND WAGES

"Where did you begin life?'"

"In Dunfermline, Scotland, during my earliest years. The service of my life has all been in this country."

"In Pittsburg?"

"Largely so. My father settled in Allegheny City, when I was only ten years old, and I began to earn my way in Pittsburg."

"Do you mind telling me what your first service was?"

"Not at all. I was a bobbin boy in a cotton factory, then an engine-man or boy in the same place, and later still I was a messenger boy for a telegraph company."

"At small wages, I suppose?"

"One dollar and twenty cents a week was what I received as a bobbin boy, and I considered it pretty good, at that. When I was thirteen, I had learned to run a steam engine, and

for that I received a dollar and eighty cents a week."

"You had no early schooling, then?"

"None except such as I gave myself."

COLONEL ANDERSON'S BOOKS

"There were no fine libraries then, but in Allegheny City, where I lived, there was a certain Colonel Anderson, who was well to do and of a philanthropic turn. He announced, about the time I first began to work, that he would be in his library at home, every Saturday, ready to lend books to working boys and men. He had only about four hundred volumes, but I doubt if ever so few books were put to better use. Only he who has longed, as I did for Saturday to come, that the spring of knowledge might be opened anew to him, can understand what Colonel Anderson did for me and others of the boys of Allegheny. Quite a number of them have risen to eminence, and I think their rise can be easily traced to this splendid opportunity." [1]

[1] It was Colonel Anderson's kindness that led Carnegie to bestow his wealth so generously for founding libraries, as he is now doing every year.

HIS FIRST GLIMPSE OF PARADISE

"How long did you remain an engine-boy?"

"Not very long," Mr. Carnegie replied; "perhaps a year."

"And then?"

"I entered a telegraph office as a messenger boy."

Although Mr. Carnegie did not dwell much on this period, he once described it at a dinner given in honor of the American Consul at Dunfermline, Scotland, when he said:—

"I awake from a dream that has carried me away back to the days of my boyhood, the day when the little white-haired Scottish laddie, dressed in a blue jacket, walked with his father into the telegraph office in Pittsburg to undergo examination as an applicant for a position as messenger boy.

"Well I remember when my uncle spoke to my parents about it, and my father objected, because I was then getting one dollar and eighty cents per week for running the small engine in a cellar in Allegheny City, but my uncle said a messenger's wages would be two dollars and fifty cents . . . If you want an idea as to heaven on earth, imagine what it

is to be taken from a dark cellar, where I fired the boiler from morning until night, and dropped into an office, where light shone from all sides, with books, papers, and pencils in profusion around me, and oh, the tick of those mysterious brass instruments on the desk, annihilating space and conveying intelligence to the world. This was my first glimpse of paradise, and I walked on air."

"How did you manage to rise from this position?"

"I learned how to operate a telegraph instrument, and then waited an opportunity to show that I was fit to be an operator. Eventually my chance came."

The truth is that James D. Reid, the superintendent of the office, and himself a Scotchman, favored the ambitious lad. In his "History of the Telegraph," he says of him:—

"I liked the boy's looks, and it was easy to see that, though he was little, he was full of spirit. He had not been with me a month when he asked me to teach him to telegraph. He spent all his spare time in practice, sending and receiving by sound and not by tape, as was the custom in those days. Pretty soon he could do as well as I could at the key."

INTRODUCED TO A BROOM

"As you look back upon it," I said to Mr. Carnegie, "do you consider that so lowly a beginning is better than one a little less trying?"

"For young men starting upon their life work, it is much the best to begin as I did, at the beginning, and occupy the most subordinate positions. Many of the present-day leading men of Pittsburg, had serious responsibility thrust upon them at the very threshold of their careers. They were introduced to the broom, and spent the first hours of their business life sweeping out the office. I notice we have janitors and janitresses now in offices, and our young men, unfortunately, miss that salutary branch of early education. It does not hurt the newest comer to sweep out the office."

"Did you?"

"Many's the time. And who do you suppose were my fellow sweepers? David McBargo, afterwards superintendent of the Allegheny Valley Railroad; Robert Pitcairn, afterwards superintendent of the Pennsylvania Railroad; and Mr. Mooreland, subsequently City Attorney of Pittsburg. We all took turns, two

each morning doing the sweeping; and now I remember Davie was so proud of his clean shirt bosom that he used to spread over it an old silk handkerchief which he kept for the purpose, and we other boys thought he was putting on airs. So he was. None of us had a silk handkerchief."

"After you had learned to telegraph, did you consider that you had reached high enough?"

"Just at that time my father died, and the burden of the support of the family fell upon me. I earned as an operator twenty-five dollars a month, and a little additional money by copying telegraphic messages for the newspapers, and managed to keep the family independent."

AN EXPERT TELEGRAPHER

More light on this period of Mr. Carnegie's career is given by the "*Electric Age*," which says:—"As a telegraph operator he was abreast of older and experienced men; and, although receiving messages by sound was, at that time, forbidden by authority as being unsafe, young Carnegie quickly acquired the art, and he can still stand behind the ticker and understand its language. As an operator, he delighted in

full employment and the prompt discharge of business, and a big day's work was his chief pleasure."

"How long did you remain with the telegraph company?"

"Until I was given a place by the Pennsylvania Railroad Company."

"As an operator?"

"At first,—until I showed how the telegraph could minister to railroad safety and success; then I was made secretary to Thomas A. Scott, the superintendent; and not long afterwards, when Colonel Scott became vice-president, I was made superintendent of the western division."

Colonel Scott's attention was drawn to Carnegie by the operator's devising a plan for running trains by telegraph, so making the most of a single track. Up to this time no one had ever dreamed of running trains in opposite directions, towards each other, directing them by telegraph, one train being sidetracked while the other passed. The boy studied out a train-despatching system which was afterwards used on every single-track railroad in the country. Nobody had ever thought of this before, and the officials were so pleased with the ingenious

lad, that they placed him in charge of a division office, and before he was twenty made him superintendent of the western division of the road.

WHAT EMPLOYERS THINK OF YOUNG MEN

Concerning this period of his life, I asked Mr. Carnegie if his promotion was not a matter of chance, and whether he did not, at the time, feel it to be so. His answer was emphatic.

" Never. Young men give all kinds of reasons why, in their cases, failure is attributable to exceptional circumstances, which rendered success impossible. Some never had a chance, according to their own story. This is simply nonsense. No young man ever lived who had not a chance, and a splendid chance, too, if he was ever employed at all. He is assayed in the mind of his immediate superior, from the day he begins work, and, after a time, if he has merit, he is assayed in the council chambers of the firm. His ability, honesty, habits, associations, temper, disposition,—all these are weighed and analyzed. The young man who never had a chance is the same young man who has been canvassed over and over again by his superiors, and found destitute of necessary

qualifications, or is deemed unworthy of closer relations with the firm, owing to some objectionable act, habit or association, of which he thought his employers ignorant."

"It sounds true."

"It is."

THE RIGHT MEN IN DEMAND

"Another class of young men attributes failure to rise to employers having near relatives or favorites whom they advance unfairly. They also insist that their employers dislike brighter intelligences than their own, and are disposed to discourage aspiring genius, and delighted in keeping young men down. There is nothing in this. On the contrary, there is no one suffering more for lack of the right man in the right place as the average employer, nor anyone more anxious to find him."

"Was this your theory on the subject when you began working for the railroad company?"

"I had no theory then, although I have formulated one since. It lies mainly in this: Instead of the question, 'What must I do for my employer?' substitute, 'What can I do?' Faithful and conscientious discharge of duties assigned you is all very well, but the verdict in

such cases generally is that you perform your present duties so well, that you would better continue performing them. Now, this will not do. It will not do for the coming partners. There must be something beyond this. We make clerks, bookkeepers, treasurers, bank tellers of this class, and there they remain to the end of the chapter. *The rising man must do something exceptional, and beyond the range of his special department. He must attract attention."*

HOW TO ATTRACT ATTENTION

"How can he do that?"

"Well, if he is a shipping clerk, he may do so by discovering in an invoice an error with which he has nothing to do and which has escaped the attention of the proper party. If a weighing clerk, he may save for the firm in questioning the adjustment of the scales, and having them corrected, even if this be the province of the master mechanic. If a messenger boy, he can lay the seed of promotion by going beyond the letter of his instructions in order to secure the desired reply. There is no service so low and simple, neither any so high, in which the young man of ability and willing disposi-

tion cannot readily and almost daily prove himself capable of greater trust and usefulness, and, what is equally important, show his invincible determination to rise."

"In what manner did you reach out to establish your present great fortune?" I asked.

"By saving my money. I put a little money aside, and it served me later as a matter of credit. Also, I invested in a sleeping-car industry, which paid me well."

SLEEPING-CAR INVENTION

Although I tried earnestly to get the great iron-king to talk of this, he said little, because the matter has been fully dealt with by him in his "Triumphant Democracy." From his own story there, it appears that one day at this time, when Mr. Carnegie still had his fortune to make, he was on a train examining the line from a rear window of a car, when a tall, spare man, accosted him and asked him to look at an invention he had made. He drew from a green bag a small model of a sleeping-berth for railway cars, and proceeded to point out its advantages. It was Mr. T. T. Woodruff, the inventor of the sleeping-car. As Mr. Carnegie tells the story:—

" He had not spoken a moment before, like a flash, the whole range of the discovery burst upon me. 'Yes,' I said, 'that is something which this continent must have,'

" Upon my return, I laid it before Mr. Scott, declaring that it was one of the inventions of the age. He remarked: 'You are enthusiastic, young man, but you may ask the inventor to come and let me see it.' I did so, and arrangements were made to build two trial cars, and run them on the Pennsylvania Railroad. I was offered an interest in the venture, which I gladly accepted.

" The notice came that my share of the first payment was $217.50. How well I remember the exact sum. But two hundred and seventeen dollars and a half were as far beyond my means as if it had been millions. I was earning fifty dollars per month, however, and had prospects, or at least I always felt that I had. I decided to call on the local banker and boldly ask him to advance the sum upon my interest in the affair. He put his hand on my shoulder and said: 'Why, of course, Andie; you are all right. Go ahead. Here is the money.'

" It is a proud day for a man when he pays his last note, but not to be named in comparison

with the day in which he makes his first one, and gets a banker to take it. I have tried both, and I know. The cars furnished the subsequent payments by their earnings. I paid my first note from my savings, so much per month, and thus I got my foot upon fortune's ladder. It was easy to climb after that."

THE MARK OF A MILLIONAIRE

"I would like some expression from you," I said to Mr. Carnegie, "in reference to the importance of laying aside money from one's earnings, as a young man."

"You can have it. There is one sure mark of the coming partner, the future millionaire; his revenues always exceed his expenditures. He begins to save early, almost as soon as he begins to earn. I should say to young men, no matter how little it may be possible to save, save that little. Invest it securely, not necessarily in bonds, but in anything which you have good reason to believe will be profitable. Some rare chance will soon present itself for investment. The little you have saved will prove the basis for an amount of credit utterly surprising to you. Capitalists trust the saving man. For every hundred dollars you can produce as

the result of hard-won savings, Midas, in search of a partner, will lend or credit a thousand; for every thousand, fifty thousand. *It is not capital that your seniors require, it is the man who has proved that he has the business habits which create capital. So it is the first hundred dollars that tell.*"

AN OIL-FARM

"What," I asked Mr. Carnegie, "was the next enterprise with which you identified yourself?"

"In company with several others, I purchased the now famous Storey farm, on Oil Creek, Pennsylvania, where a well had been bored and natural oil struck the year before. This proved a very profitable investment."

In "Triumphant Democracy," Mr. Carnegie has expatiated most fully on this venture, which is so important. "When I first visited this famous well," he says, "the oil was running into the creek, where a few flat-bottomed scows lay filled with it, ready to be floated down the Alleghany River, on an agreed-upon day each week, when the creek was flooded by means of a temporary dam. This was the beginning of the natural-oil business. We pur-

chased the farm for $40,000, and so small was our faith in the ability of the earth to yield for any considerable time the hundred barrels per day, which the property was then producing, that we decided to make a pond capable of holding one hundred thousand barrels of oil, which, we estimated, would be worth, when the supply ceased, $1,000,000.

"Unfortunately for us, the pond leaked fearfully; evaporation also caused much loss, but we continued to run oil in to make the losses good day after day, until several hundred thousand barrels had gone in this fashion. Our experience with the farm is worth reciting: its value rose to $5,000,000; that is—the shares of the company sold in the market upon this basis; and one year it paid cash dividends of $1,000,000—upon an investment of $40,000."

IRON BRIDGES

"Were you satisfied to rest with these enterprises in your hands?" I asked.

"No. Railway bridges were then built almost exclusively of wood, but the Pennsylvania Railroad had begun to experiment with cast-iron. It struck me that the bridge of the future must be of iron; and I organized, in Pittsburg,

a company for the construction of iron bridges. That was the Keystone Bridge Works. We built the first iron bridge across the Ohio."

His entrance of the realm of steel was much too long for Mr. Carnegie to discuss, although he was not unwilling to give information relating to the subject. It appears that he realized the immensity of the steel manufacturing business at once. The Union Iron Mills soon followed as one of the enterprises, and, later, the famous Edgar Thompson Steel Rail Mill. The last was the outcome of a visit to England, in 1868, when Carnegie noticed that English railways were discarding iron for steel rails. The Bessemer process had been then perfected, and was making its way in all the iron-producing countries. Carnegie, recognizing that it was destined to revolutionize the iron business, introduced it into his mills and made steel rails with which he was enabled to compete with English manufacturers.

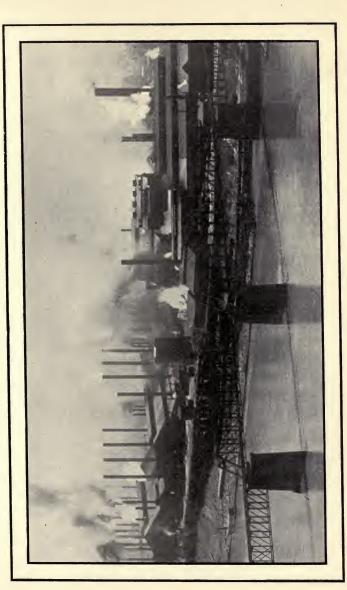
HOMESTEAD STEEL WORKS

His next enterprise was the purchase of the Homestead Steel Works,—his great rival in Pittsburg. In 1888, he had built or acquired seven distinct iron and steel works, all of which

are now included in the Carnegie Steel Company, Limited. All the plants of this great firm are within a radius of five miles of Pittsburg. Probably in no other part of the world can be found such an aggregation of splendidly equipped steel works as those controlled by this association. It now comprises the Homestead Steel Works, the Edgar Thompson Steel Works and Furnaces, the Duquesne Steel Works and Furnaces, all within two miles of one another; the Lucy Furnaces, the Keystone Bridge Works, the Upper Union Rolling Mills, and the Lower Union Rolling Mills.

In all branches, including the great coke works, mines, etc., there are employed twenty-five thousand men. The monthly pay roll exceeds one million, one hundred and twenty-five thousand dollars, or nearly fifty thousand dollars for each working day. Including the Frick Coke Company, the united capital of the Carnegie Steel Company exceeds sixty million dollars.

A STRENGTHENING POLICY

"You believe in taking active measures," I said, "to make men successful."

Partial view of the Homestead Steel Works.

"I believe in anything which will help men to help themselves. To induce them to save, every workman in our company is allowed to deposit part of his earnings, not exceeding two thousand dollars, with the firm, on which the high interest rate of six per cent. is allowed. The firm also lends to any of its workmen to buy a lot, or to build a house, taking its pay by installments."

"Has this contributed to the success of your company?"

"I think so. The policy of giving a personal interest to the men who render exceptional service is strengthening. With us there are many such, and every year several more are added as partners. It is the policy of the concern to interest every superintendent in the works, every head of a department, every exceptional young man. Promotion follows exceptional service, and there is no favoritism."

PHILANTHROPY

"All you have said so far, merely gives the idea of getting money, without any suggestion as to the proper use of great wealth. Will you say something on that score?"

"My views are rather well known, I think. What a man owns is already subordinate, in America, to what he knows; but in the final aristocracy, the question will not be either of these, but what has he done for his fellows? Where has he shown generosity and self-abnegation? Where has he been a father to the fatherless? And the cause of the poor, where has he searched that out?"

That Mr. Carnegie has lived up in the past, and is still living up to this radical declaration of independence from the practice of men who have amassed fortunes around him, will be best shown by a brief enumeration of some of his almost unexampled philanthropies. His largest gift has been to the city of Pittsburg, the scene of his early trials and later triumphs. There he has built, at a cost of more than a million dollars, a magnificent library, museum, concert hall and picture gallery, all under one roof, andendowed it with a fund of another million, the interest of which (fifty thousand dollars per annum) is being devoted to the purchase of the best works of American art. Other libraries, to be connected with this largest as a center, are now being constructed, which will make the city of Pittsburg and its environs a

beneficiary of his generosity to the extent of five million dollars.

While thus endowing the city where his fortune was made, he has not forgotten other places endeared to him by association or by interest. To the Allegheny Free Library he has given $375,000; to the Braddock Free Library, $250,000; to the Johnstown Free Library, $50,000; and to the Fairfield (Iowa) Library, $40,000. To the Cooper Institute, New York, he has given $300,000. To his native land he has been scarcely less generous. To the Edinburgh Free Library he has given $250,000, and to his native town of Dunfermline, $90,000. Other Scottish towns to the number of ten have received helpful donations of amounts not quite so large. He has given $50,000 to aid poor young men and women to gain a musical education at the Royal College of Music in London.

"THE MISFORTUNE OF BEING RICH MEN'S SONS"

"I should like to cause you to say some other important things for young men to learn and benefit by."

"Our young partners in the Carnegie com-

pany have all won their spurs by *showing that we did not know half as well what was wanted as they did.* Some of them have acted upon occasions with me as if they owned the firm and I was but some airy New Yorker, presuming to *advise upon what I knew very little about.* Well, they are not now interfered with. *They were the true bosses,—the very men we were looking for.*"

"Is this all for the poor boy?"

"Every word. Those who have the misfortune to be rich men's sons are heavily weighted in the race. A basketful of bonds is the heaviest basket a young man ever had to carry. He generally gets to staggering under it. The vast majority of rich men's sons are unable to resist the temptations to which wealth subjects them, and they sink to unworthy lives. It is not from this class that the poor beginner has rivalry to fear. The partner's sons will never trouble you much, but look out that some boys poorer, much poorer, than yourselves, whose parents cannot afford to give them any schooling, do not challenge you at the post and pass you at the grand stand. Look out for the boy who has to plunge into work direct from the

common school, and begins by sweeping out the office. He is the probable dark horse that will take all the money and win all the applause." [1]

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[1] Mr. Carnegie's recent retirement from business, and the sale of his vast properties to the Morgan Syndicate, marks a new era in his remarkable career; and it gives him the more leisure to consider carefully every dollar he bestows in the series of magnificent charities that he has inaugurated.

XVII

Herreshoff, the Yacht Builder

I

THE VOYAGE OF LIFE

Total eclipse; no sun, no moon;
Darkness amid the blaze of noon!—MILTON

AMID the ranks of the blind, we often find men and women of culture and general ability, but we do not look for world-renowned specialists. No one is surprised at a display of enterprise in a "booming" western town, where everybody is "hustling;" but in a place which has once ranked as the third seaport in America, but has seen its maritime glory decline, a man who can establish a marine industry on a higher plane than was ever before known, and attract to his work such world-wide attention as to restore the vanished fame of his town, is no ordinary per-

son. Moreover, if such a man has laid his plans and done his work in the disheartening eclipse of total blindness, he must possess qualities of the highest order.

The office of the Herreshoff Manufacturing Company, at Bristol, Rhode Island, is in a building that formerly belonged to the Burnside Rifle Company. It is substantial, but unpretentious, and is entered by a short stairway on one side. The furniture throughout is also plain, but has been selected with excellent taste, and is suggestive of the most effective adaptation of means to ends in every detail. On the mantel and on the walls are numerous pictures, most of them of vessels, but very few relating directly to any of the great races for the "America's" cup. The first picture to arrest one's attention, indeed, is an excellent portrait of the late General Ambrose E. Burnside, who lived in Bristol, and was an intimate friend of John B. Herreshoff.

Previous inquiry had elicited the information that the members of the firm are very busy with various large orders, in addition to the rush of work on Cup Defenders; so it was a very agreeable surprise when I was invited into the tasteful private office, where the blind presi-

dent sat, having just concluded a short conversation with an attorney.

"LET THE WORK SHOW"

"Well, sir," said he, rising and grasping my hand cordially, "what do you wish?"

"I realize how very busy you must be, Mr. Herreshoff," I replied, and will try to be as brief as possible; but I venture to ask a few minutes of your time, to obtain suggestions and advice from you to young people."

"But why select me, in particular, as an adviser?"

This was "a poser," at first, especially when he added, noting my hesitation:—

"We are frequently requested to give interviews in regard to our manufacturing business; but, since as it is the settled policy of our house to do our work just as well as we possibly can and then leave it to speak for itself, we have felt obliged to decline all these requests. It would be repugnant to our sense of propriety to talk in public about our special industry. 'Let the work show!' seems to us a good motto."

THE VOYAGE OF LIFE

"True," said I. "But the readers of my books may not care to read of cutters or 'skimming dishes,' center-boards or fin keels, or copper coils *versus* steel tubes for boilers. They leave the choice in such matters to you, realizing that you have always proved equal to the situation. What I want now is advice in regard to the race of life,—the voyage in which each youth must be his own captain, but in which the words of others who have successfully sailed the sea before will help to avoid rocks and shoals, and to profit by favoring currents and trade winds. You have been handicapped in an unusual degree, sailing in total darkness and beset by many other difficulties, but have, nevertheless, made a very prosperous voyage. In overcoming such serious obstacles, you must have learned much of the true philosophy of both success and failure, and I think you will be willing to help the young with suggestions drawn from your experience."

"I always want to help young people, or old people, either, for that matter, if anything I can say will do so. But what can I say?"

A MOTHER'S MIGHTY INFLUENCE

"What do you call the prime requisite of success?"

"I shall have to answer that by a somewhat humorous but very shrewd suggestion of another,—select a good mother. Especially for boys, I consider an intelligent, affectionate but considerate mother an almost indispensable requisite to the highest success. If you would improve the rising generation to the utmost, appeal first to the mothers."

"In what way?"

"*Above all things else, show them that reasonable self-denial is a thousandfold better for a boy than to have his every wish gratified. Teach them to encourage industry, economy, concentration of attention and purpose, and indomitable persistence.*"

"But most mothers try to do this, don't they?"

"Yes, in a measure; but many of them, perhaps most of them, do not emphasize the matter half enough. A mother may wish to teach all these lessons to her son, but she thinks too much of him, or believes she does, to have him suffer any deprivation, and so indulges him in

things which are luxuries for him, under the circumstances, rather than necessaries. Many a boy, born with ordinary intellect, would follow the example of an industrious father, were it not that his mother wishes him to appear as well as any boy in the neighborhood. So, without exactly meaning it, she gets to making a show of her boy, and brings him up with a habit of idling away valuable time, to keep up appearances. The prudent mother, however, sees the folly of this course, and teaches her son to excel in study and work, rather than in vain display. The difference in mothers makes all the difference in the world to children, who like brooks, can be turned very easily in their course of life."

SELF HELP

"What ranks next in importance?"

"Boys and girls themselves, especially as they grow older, and have a chance to understand what life means, should not only help their parents as a matter of duty, but should learn to help themselves, for their own good. I would not have them forego recreation, a reasonable amount every day, but let them learn the reality and earnestness of existence,

and resolve to do the whole work and the very best work of thorough, reliable young men and women."

WHAT CAREER

"What would you advise as to choosing a career?"

"In that I should be governed largely by the bent of each youth. What he likes to do best of all, that he should do; and he should try to do it better than anyone else. That is legitimate emulation. Let him devote his full energy to his work; with the provision, however, that he needs change or recreation more in proportion as he uses his brain more. The more muscular the work, if not too heavy, the more hours, is a good rule: the more brain work, the fewer hours. Children at school should not be expected to work so long or so hard as if engaged in manual labor. Temperament, too, should be considered. A highly organized, nervous person, like a racehorse, may display intense activity for a short time, but it should be followed by a long period of rest; while the phlegmatic person, like the ox or the draft horse, can go all day without injury."

EDUCATION

"I believe in education most thoroughly, and think no one can have too much knowledge, if properly digested. But in many of our colleges, I have often thought, not more than one in five is radically improved by the course. Most collegiates waste too much time in frivolity, and somehow there seems to be little restraining power in the college to prevent this. I agree that students should have self-restraint and application themselves, but, in the absence of these, the college should supply more compulsion than is now the rule."

APPRENTICES

"Do you favor reviving the old apprentice system for would-be mechanics?"

"Only in rare cases. As a rule, we have special machines now that do as perfect work as the market requires; some of them, indeed, better work than can be done by hand. A boy or man can soon learn to tend one of these, when he becomes, for ordinary purposes, a specialist. Very few shops now have apprentices. No rule, however, will apply to all, and it may still be best for one to serve an apprenticeship

in a trade in which he wishes to advance beyond any predecessor or competitor."

PREPARE TO THE UTMOST: THEN DO YOUR BEST

"Is success dependent more upon ability or opportunity?"

"Of course, opportunity is necessary. You couldn't run a mammoth department store on the desert of Sahara. But, given the possibility, the right man can make his opportunity, and should do so, if it is not at hand, or does not come, after reasonable waiting. Even Napoleon had to wait for his. On the other hand, if there is no ability, none can display itself, and the best opportunity must pass by unimproved. The true way is to first develop your ability to the last ounce, and then you will be ready for your opportunity, when it comes, or to make one, if none offers."

PRESENT OPPORTUNITIES

"Is the chance for a youth as good as it was twenty-five or fifty years ago?"

"Yes, and no. In any country, as it becomes more thickly populated, the chance for purely individual enterprises is almost sure to

diminish. One notices this more as he travels through other and older countries, where, far more than with us, boys follow in the footsteps of their fathers, generation after generation. But for those who are willing to adapt themselves to circumstances, the chance, to-day, at least from a pecuniary standpoint, is better than ever before, for those starting in life. There was doubtless more chance for the individual boat-builder, in the days of King Philip, when each Indian made his own canoe; but there is certainly more profit now for an employee of our firm of boat-builders."

NATURAL EXECUTIVE ABILITY

"Granted, however, that he can find employment, how do his chances of rising compare with those of your youth?"

"They still depend largely upon the individual. *Some seem to have natural executive ability, and others develop it, while most men never possess it. Those who lack it cannot hope to rise far, and never could.* Jefferson's idea that all men are created equal is true enough, perhaps, so far as their political rights are concerned, but from the point of view of efficiency in business, it is ridiculous. In any

shop of one hundred men, you will find one who is acknowledged, at least tacitly, as the leader, and he sooner or later becomes so in fact. A rich boy may get and hold a place in an office, on account of his wealth or influence; but in the works, merit alone will enable a man to hold a place long."

THE DEVELOPMENT OF POWER

"But what is his chance of becoming a proprietor?"

"That is smaller, of course, as establishments grow larger and more valuable. It is all bosh for every man to expect to become a Vanderbilt or a Rockefeller, or to be President. But, in the long run, a man will still rise and prosper in almost exact proportion to his real value to the business world. He will rise or fall according to his ability."

"Can he develop ability?"

"Yes, to a certain extent. As I have said, we are not all alike, and no amount of cultivation will make some minds equal to those of others who have had but little training. But, whether great or small, everyone has some weak point; let him first study to overcome that."

"How can he do it?"

"The only way I know of is to—do it. But this brings me back to what I told you at first. A good mother will show one how to guard against his weak points. She should study each child and develop his individual character, for character is the true foundation, after all. She should check extravagance and encourage industry and self-respect. My mother is one of the best, and I feel I owe her a debt I can never repay."

"MY MOTHER"

"Your mother? Why, I thought you had been a boatbuilder for half a century! How old is she?"

"She is eighty-eight, and still enjoys good health. If I have one thing more than another to be thankful for, it is her care in childhood and her advice and sympathy through life. How often have I thought of her wisdom when I have seen mothers from Europe (where they were satisfied to be peasants), seek to outshine all their neighbors after they have been in America a few years, and so bring financial ruin to their husbands or even goad them into crime, and curse their children with contempt

for honest labor in positions for which they are fitted, and a foolish desire to keep up appearances, even by living beyond their means and by seeking positions they cannot fill properly."

A BOAT BUILDER IN YOUTH

"You must have been quite young, when you began to build boats?"

"About thirteen or fourteen years old. You see, my father was an amateur boat-builder, in a small way, and did very good work, but usually not for sale. But I began the work as a business thirty-six years ago, when I was about twenty-two."

HE WOULD NOT BE DISCOURAGED

"You must have been terribly handicapped by your blindness."

"It was an obstacle, but I simply would not allow it to discourage me, and did my best, just the same as if I could see. My mother had taught me to think, and so I made thought and memory take the place of eyes. I acquired a kind of habit of mental projection which has enabled me to see models in my mind, as it were, and to consider their good and bad points intelligently. Besides, I cultivated my powers

of observation to the utmost, in other respects. Even now, I take an occasional trip of observation, for I like to see what others are doing, and so keep abreast of the progress of the age. But I must stop or I shall get to 'talking shop,' the thing I declined to do at first.

THE SUM OF IT ALL

"The main thing for a boy is to have a good mother, to heed her advice, to do his best, and not get a 'swelled head' as he rises,—in other words, not to expect to put a gallon into a pint cup, or a bushel into a peck measure. Concentration, decision, industry and economy should be his watchwords, and invincible determination and persistence his rule of action."

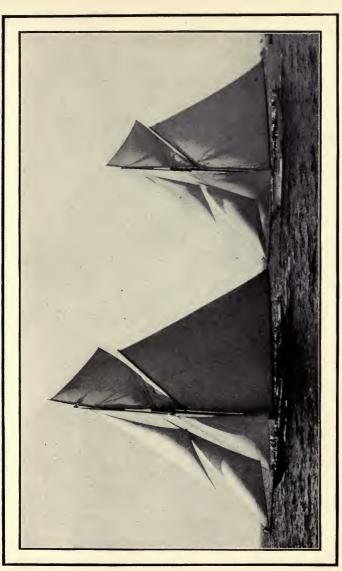
With another cordial handshake, he bade me good-by.

II

WHAT THE HERRESHOFF BROTHERS HAVE BEEN DOING

Their recent Cup Defenders have made their names familiar to all, but shipping circles have long known them. The business of the firm was long confined almost wholly to the creation

of boats with single masts, each craft from twenty to thirty-six feet long. In their first ten years of associated work, they built nearly two thousand of these. But they were wonderful little boats, and of unrivaled swiftness. Then they made as wonderful a success in building steam fishing yachts. Then came torpedo boats.

And in 1881 their proposal to the British government to build two vedette boats was accepted on condition they should outmatch the work of White, the naval launch builder at Cowes. No firm had ever been able to compete with White. But in the following July the two Herreshoff boats were in the Portsmouth dockyard, England, ready for trial. They were each forty-eight feet long, nine feet in beam, and five feet deep, exactly the same size as White's. They made fifteen and one-half knots an hour, while White's only recorded twelve and two-fifths knots. "With all their machinery coal and water in place. the Herreshoff boats were filled with water, and then twenty men were put aboard each, that human load being just so much in excess the admiralty test, and even then each had a floating capacity of three tons. The examiners pronounced enthusiastically in favor of the

The race between the "Vigilant" and the "Valkyrie."

(The "Vigilant," Herreshoff boat, the winner.)

Herreshoff safety coil boilers as unexplodable, less liable to injury from shock, capable of raising steam more quickly, far lighter, and in all respects superior to those that had been formerly used for the purpose." The boats were accepted, and orders given at once for two pinnaces, each thirty-three feet long. Again John Samuel White competed, but his new boats could only make seven and one-eighth knots, while the Herreshoff's easily scored nine and one-quarter.

RACING JAY GOULD

In July, 1883, Jay Gould was highly elated over the speed of his beautiful steam yacht "Atalanta," which had several times met and distanced Edward S. Jaffray's wonderful "Stranger;" but, on the twentieth of that month, his happiness, as the story is told, was very suddenly dashed.

After a hard day's work, the jaded Jay boarded the "Atalanta" and began to shake out his pin-feathers a little, figuratively speaking. But before his boat had gone far on her run to Irvington, the bold manipulator of Wall Street made out a craft on his weather-quarter that seemed to be gliding after the "Atalanta"

with intent to overhaul her. He had a good start, however, and sang out to the captain to keep a sharp eye on the persistent little stranger, so unlike the "Stranger" he had vanquished.

"I wonder what it is!" he exclaimed to a friend beside him.

The friend looked long and carefully at the oncoming boat, then turned a quizzical eye on Jay, remarking:—

"In a little while we can tell."

"Will she get that close?"

"I think she will."

It was not long before the strange boat was abreast of the "Atalanta," and Jay was then able to make out the mystical number "100" on her. He rubbed his eyes. Those were the very figures he had long hoped to see on the stock ticker, after the words "Western Union," but that day they had lost their charm. Before long he was not only able to see the broadside of the "100," but also had a good view of the stern of the vessel, whereon the same figures soon appeared and nearly as soon disappeared, as the "100" bade good-by to the "Atalanta," which was burning every pound of coal that could possibly be carried without

putting Mr. Gould or some efficient substitute on the safety valve.

"He seems to be out of humor to-night," said his coachman, after leaving his employer at the door of his Irvington mansion.

The mystic "100" which, by the way, was just one hundred feet over all, was merely the hundredth steamer built by the Herreshoffs, but on her first trip up the Hudson she attracted as much attention as the "Half Moon" of Henry Hudson or the "Clermont" of Robert Fulton. She was the fastest yacht in the world, and was beaten on the river by only one vessel, the "Mary Powell"—four and one-half minutes in twenty miles.

Although Mr. Gould was considerably irritated at his defeat, he knew a good thing when he saw it, and the next year he ordered a small steam launch of the Herreshoffs.

The "100" made a great stir in Boston Harbor. Later on she steamed through the Erie canal and the Great Lakes, and made her home with the millionaire Mark Hopkins.

THE "STILETTO"

The versatility of the Herreshoffs has appeared in their famous boiler improvement, and

in the great variety of vessels they have built. The "Stiletto" only ninety-four feet long, over all, astonished the yachting world in 1885. On June 10, she beat the "Mary Powell" two miles in a race of twenty-eight miles on the Hudson. At one time, the "Stiletto" circled completely around the big steamer and then moved rapidly away from her.

Secretary Whitney bought the "Stiletto" for the United States navy, in which she has done valuable service. She was followed, in 1890, by the still faster "Cushing," whose record in the recent Spanish-American war is so well known.

Admiral Porter wrote to Secretary of the Navy Chandler, that the little Herreshoff steam launches were faster than any other owned by the government, their great superiority showing especially against a strong head wind and sea. when they would remain dry while their rivals required constant bailing. They were better trimmed, lighter, more buoyant, and in every way superior in nautical qualities, and twice as fast as others in a gale.

Nineteen vessels have been built by this firm for the United States government.

"There is a certain speed that attaches to

every vessel, which may be called its natural rate," says Lewis Herreshoff; "it is mainly governed by its length and the length of the carrier wave which always accompanies a vessel parallel to her line of motion. When she reaches a speed great enough to form a wave of the same length as the moving body, then that vessel has reached her natural rate of speed, and all that can be obtained above that is done by sheer brute force. The natural limit of speed of a boat forty feet long is about ten miles an hour; of a vessel sixty feet in length, twelve and one-quarter miles; of one a hundred feet long, fifteen and three-fourths miles; of one two hundred feet long, twenty-two miles."

As the speed is increased, this double or carrier wave, one-half on either side of the yacht, lengthens in such a way that the vessel seems to settle more the faster she goes, and so has to climb the very wave she makes. Hence the motive power must be increased much faster than the speed increases. Further, in order to avoid this settling and consequent climbing as much as possible, lightness of construction, next to correct proportions, is made the great desideratum in the Herreshoffs' ideal boat. They use wood wherever possible, as it is not

only lighter than metal, but is reasonably strong and generally much more durable. Wherever heavy strains come, a bracing form of construction is adopted, and metal is used also.

The engine of the "Stiletto" weighs ten pounds for each indicated horse-power; that of the "Cushing," fifteen. The entire motive plant of the "Cushing" weighs sixty-five pounds for each horse-power; that of the "City of Paris," two hundred. Comparing displacement, the former has eight times the power of the latter.

For four years our government kept a staff of officers stationed at the Herreshoff works to experiment with high-speed machinery, in which the firm then led the country. One of their steamers, ascending the St. Lawrence River to the Thousand Islands, ran up all the rapids except the Lachine, where a detour by canal was made. The Canadians were deeply impressed by this triumph.

THE BLIND BROTHERS

One of the Herreshoff sisters is blind and a remarkable musician; and one brother blind who studied music in Berlin, and who conducts a school of music in Providence. Lewis Her-

reshoff, one of the boat-builders, is also blind. He, too, is a fine musician and an excellent bass singer, having received careful vocal training in Europe. He has fine literary taste, a very clear style, and writes for magazines, especially on boat-building and engineering. He has a large foreign correspondence, all of which he answers personally on the typewriter. It would be difficult to find a greater favorite with young people, to whom he devotes much of his time, teaching them games or lessons, also how to sail or row a boat, how to swim or float, and how to save each other from drowning. When walking along the street with a group of chatting children, he will ask, "What time is it by the clock on St. Michael's Church?" pointing right at the steeple. He will wind a clock and set it exactly, and regulate it, if it does not go right.

THE PERSONALITY OF JOHN B. HERRESHOFF

From his boyhood, John B. Herreshoff evinced a great fondness for boats and machinery, finding most pleasure, in his leisure hours, when boys of his age usually think only of play, in haunting boat-builders' yards and machine shops, studying how and why things were

done, and reading what had been done elsewhere in those branches of industry, beyond his field of observation.

At the age of eleven, he was studying the best lines for vessels' hulls and making models and three years later he began building boats.

His terrible affliction has never seemed to weaken his self-reliance or turn him aside from following the chosen pursuit of his life, but has rather strengthened his devotion to it and his capacity for it by concentrating all his faculties upon it.

His many years of blindness have given him not only the serious, patient, introspective look common to those who suffer like him, and their gentle, clearly modulated voice, but have also developed all his other faculties to such an extent as to largely replace the missing sense.

He can tell as much about an ordinary-sized steam launch, her lines, methods of construction, etc., by feeling, as others can by seeing, and he goes on inventing and building just as if his eyes were not closed forever. He is a tall, big-brained man, who couldn't help inventing and working if he tried. Such a man would have to suffer the loss of more than one of his

senses before his mental efficiency would be impaired. When he wanted to build some steam launches for the government, he went to the navy yard at Washington and felt of the government launches, to discover their shape and how they were made. Then he went to Bristol and made better launches suitable for the government's use.

HAS HE A SIXTH SENSE?

He reads and understands the most delicate intonations and modulations of voices addressing him, as others read and understand facial expression. His sensitive fingers detect differences in metals, and follow, as if with a gift of perception, the lines of models submitted to him, and his mind sees even more clearly than by mere physical sight the intricacies of the most complicated machinery intelligently described to him, or over which his fingers are allowed to move. "That is a good stick," he will say, examining a pile of lumber with his fingers. "Here's a shaky piece, throw it out; it won't do for this work," may come next, or, "Saw off this end; it's poor stock. The rest is all right." On hearing him criticize, direct, and explain things within his province, a stranger

finds it hard to believe he cannot see at least a little,—out of one eye.

SEEING WITH THE FINGERS

By the constant practice, he has, as he expresses it, learned to see with his hands, not quite so quickly, but he believes as perfectly, as he could with his eyes, and this means more than it does in the case of an ordinary blind man; for, by a touch, he can tell whether the graceful double curves of a boat's bottom are in correct proportion, one with another, and then, by a few rapid sweeps of his hands, over all, he can instantly judge of the symmetry and perfection of the whole. Even more than this, he will give minute directions to the carpenters and mechanics, running his hand along the piece of work one had produced, will immediately detect the slightest deviation from the instruction he has given. If at all impatient, he will seize the plane or other tool, and do the work himself. And yet the world calls this man "blind!"

While skill plays a material part, one of John B. Herreshoff's boats is a product of the mind, in a very great degree. Psychologists tell us that we do not see with our eyes, but with the

brain proper. This blind man sees, and constructs, not that which is objective and real to others, but that which is evolved from a transcendental intelligence applied to the most practical purposes.

BROTHER NAT

One of the brothers, who has good eyes, is a prominent chemist in New York; and one who can see is Nat the designer for the boat-building.

Nathaniel G., the great yacht designer, was born in 1848. When he was not more than two years old, he was often found asleep on the sand along shore, with the rising tide washing his bare feet. Whenever he was missing, he was sought for first on the shore, where he would generally be found watching the ships or playing with toy boats.

At nine years of age, he was an excellent helmsman, and at twelve he sailed the "Sprite" to her first victory and won a prize. When older grown, he was known as a vigilant watcher of every chance as well as a skillful sailor. Once, when steering the "Ianthe" in a failing wind, he veered widely from a crowd of contestants, so as to run into a good

breeze he noted far to starboard, and won the race.

He took a four years' course at the Massachusetts Institute of Technology, and then served an apprenticeship with the famous Corliss Engine Company. He worked on the great engine at the Centennial Exposition, and took a course of engineering abroad, visiting many noted shipyards. He joined the firm in 1877, fourteen years after the works were opened.

Nathaniel Greene Herreshoff, named for General Greene of Revolutionary fame, is seven years younger, and only less famous than his blind brother as a boat-builder,—only second to John B. in about the same way that Greene was second to Washington. "General Greene is second to no one," said Washington. John B. would have done splendid work without Nat as he did for years before the latter joined the firm, but it would have been in a smaller way.

For years John B., his father, and his brothers, James B. or Lewis, and Nathaniel G., were accustomed to get together frequently in the dining-room of the old homestead, and talk and plan together in regard to boat-building. Nat would usually make the first model on lines previously agreed upon, and then John B.

would feel it over and suggest changes, which would be made, and the consultation continued until all was satisfactory.

Nathaniel is described as "a tall, thin man, with a full beard and a stoop," the latter said to have been acquired in "watching his rivals in his races, craning his head in order to see them from under the boom."

"We have been always together from boyhood," said John B., speaking of "Nat;" "we have had the same pleasures, the same purposes, the same aspirations; in fact, we have almost been one, and we have achieved nothing for which a full share of credit is not his just due. Nothing has ever been done by one without the other. Whenever one found an obstacle or difficulty, the other helped him to remove it; and he, being without the disadvantage I have, never makes a mistake."

XVIII

A Successful Novelist: Fame After Fifty[1]

Practical Hints to Young Authors,

BY MRS. AMELIA E. BARR

TO be successful! That is the legitimate ideal every true worker seeks to realize. But success is not the open secret which it appears to be; its elements are often uncomprehended; and its roots generally go deep down, into the very beginnings of life. I can compel my soul to look back into that twilight which shrouds my earliest years, and perceive, even in them, monitions and tendencies working for that future, which in my des-

[1] This is a most remarkable story, communicated to me by Mrs. Barr, and related for the first time in this article. The distinguished novelist, being a perfect housekeeper and the mother of a large family, yet earns $20,000 a year by her books, which have been translated into the language of almost every civilized country.—
O. S. M.

tiny was fashioned and shaped when as yet there was neither hint nor dream of it. Fortunately, I had parents who understood the

VALUE OF BIBLICAL AND IMAGINATIVE LITERATURE

in the formation of the intellect. The men and women whom I knew first and best were those of the Hebrew world. Sitting before the nursery fire, while the snow fell softly and ceaselessly, and all the mountains round were white, and the streets of the little English town choked with drifts, I could see the camels and the caravans of the Ishmaelitish merchants, passing through the hot, sandy desert. I could see Hagar weeping under the palm, and the waters of the Red Sea standing up like a wall. Miriam clashing the timbrels, and Deborah singing under the oak, and Ruth gleaning in the wheatfields of Bethlehem, were as real to me as were the women of my own home. Before I was six years old, I had been with Christian to the Celestial City, and had watched, with Crusoe, the mysterious footprint on the sand, and the advent of the savages. Then came the wonders of afrites and genii, and all the marvels and miracles of the Arabian tales.

These were the mind-builders, and though schools and teachers and text-books did much afterwards, I can never nor will forget the glorious company of men and women from the sacred world, and that marvelous company of caliphs and kings and princesses from Wonder Land and Fairy Land, that expanded my whole nature, and fitted me for the future miracles of Nature and Science, and all the marvelous people of the Poet's realm.

For eighteen years I was amassing facts and fancies, developing a crude intelligence, waiting for the vitalization of the heart. Then Love, the Supreme Teacher, came; and his first lesson was,

RENUNCIATION.

I was to give up father, and mother, home and kindred, friends and country, and follow where he would lead me, into a land strange and far off. Child-bearing and child-losing; the limitations and delights of frontier life; the intimate society of such great and individual men as Sam Houston, and the men who fought with him; the intense feelings induced by war, its uncertainties and possibilities, and the awful abiding in the Valley of the Shadow of Death,

with the pestilence that walked in darkness and the sickness that destroyed at noonday;—all these events with their inevitable "asides" were instrumental in the education and preparation of the seventeen years of my married life.

The calamitous lesson of widowhood, under peculiarly tragic circumstances, was the last initiation of a heart already broken and humbled before Him who doeth all things well, no matter how hard the stroke may be. I thought all was over then; yet all was just beginning. It was the open door to a new life—a life full of comforts, and serene, still,

DELIGHTFUL STUDIES.

Though I had written stories to please my children, and many things to please myself, it had never occurred to me that money could be made by writing. The late William Libbey, a man of singular wisdom and kindness, first made me understand that my brain and my ten fingers were security for a good living. From my first effort I began to gather in the harvest of all my years of study and reading and private writing. For there is this pecu-

liarity about writing—that if in any direction it has merit, it will certainly find a market.

For fifteen years I wrote short stories, poems, editorials, and articles on every conceivable subject, from Herbert Spencer's theories, to gentlemen's walking sticks; but bringing to every piece of work, if it was only ten lines, the best of my knowledge and ability; and so earning, with a great deal of pleasure, a very good living. During the earlier years of this time I worked and read on an average

FIFTEEN HOURS A DAY;

for I knew that, to make good work, I must have constant fresh material; must keep up to date in style and method; and must therefore *read* far more than I wrote. But I have been an omnivorous reader all my life long, and no changes, no cares of home and children, have ever interfered with this mental necessity. In the most unlikely places and circumstances, I looked for books, and found them. These fifteen years on the weekly and monthly periodicals gave me the widest opportunities for information. I had an alcove in the Astor Library, and I practically lived in it. I slept and ate at home, but I lived in that City of

Books. I was in the prime of life, but neither society, amusements, nor pleasures of any kind, could draw me away from the source of all my happiness and profit.

Suddenly, after this long novition, I received the "call" for a different work. I had

AN ACCIDENT

which confined me to my room, and which, I knew, would keep me from active work for some months. I fretted for my work, as dry wood frets an inch from the flame, and said, "I shall lose all I have gained; I shall fall behind in the race; all these things are against me." They were all for me. A little story of what seemed exceptional merit, had been laid away, in the hope that I might some day find time to extend it into a novel. A prisoner in my chair, I finished the book in six weeks, and sent it to Dodd, Mead & Co. On Thanksgiving morning, a letter came, accepting the book, and any of my readers can imagine what a happy Thanksgiving Day that was! This book was "Jan Vedder's Wife," and its great and immediate success indicated to me the work I was at length ready for. I was then in my fifty-second year, and every year had been a

preparation for the work I have since pursued. I went out from that sick room sure of my

VOCATION;

and, with a confidence founded on the certainty of my equipment, and a determination to trust humanity, and take my readers only into green pastures and ways of purity and heroism, I ventured on my new path as a novelist.

I cannot close this paper without a few words to those who wish to profit by it. I want them to be sure of a few points which, in my narrative, I may not have emphasized sufficiently.

WORDS OF COUNSEL

1. Men and women succeed *because they take pains to succeed.* Industry and patience are almost genius; and successful people are often more distinguished for resolution and perseverance than for unusual gifts. They make determination and unity of purpose supply the place of ability.

2. Success is the reward of those who "spurn delights and live laborious days." We learn to do things by *doing them. One of the great secrets of success is "pegging away."*

No disappointment must discourage, and a run back must often be allowed, in order to take a longer leap forward.

3. *No opposition must be taken to heart.* Our enemies often help us more than our friends. Besides, a head-wind is better than no wind. Who ever got anywhere in a dead calm?

4. *A fatal mistake is to imagine that success is some stroke of luck.* This world is run with far too tight a rein for luck to interfere. Fortune *sells* her wares; she never gives them. In some form or other, we pay for her favors; or we go empty away.

5. We have been told, for centuries, to watch for opportunities, and to strike while the iron is hot. Very good; but I think better of Oliver Cromwell's amendment.—"*make the iron hot by striking it.*"

6. Everything good needs time. Don't do work in a hurry. Go into details; it pays in every way. *Time means power for your work.* Mediocrity is always in a rush; but whatever is worth doing at all is worth doing with consideration. For genius is nothing more nor less than doing well what anyone can do badly.

7. *Be orderly.* Slatternly work is never

good work. It is either affectation, or there is some radical defect in the intellect. I would distrust even the spiritual life of one whose methods and work were dirty, untidy, and without clearness and order.

8. Never be above your profession. I have had many letters from people who wanted all the emoluments and honors of literature, and who yet said, " Literature is the accident of my life; I am a lawyer, or a doctor, or a lady, or a gentleman." *Literature is no accident. She is a mistress who demands the whole heart, the whole intellect, and the whole time of a devotee.*

9. Don't fail through defects of temper and over-sensitiveness at moments of trial. *One of the great helps to success is to be cheerful;* to go to work with a full sense of life; to be determined to put hindrances out of the way; to prevail over them and to get the mastery. *Above all things else, be cheerful;* there is no beatitude for the despairing.

Apparent success may be reached by sheer impudence, in defiance of offensive demerit. But men who get what they are manifestly unfit for, are made to feel what people think of them. Charlatanry may flourish; but when

its bay tree is greenest, it is held far lower than genuine effort. The world is just; it may, it does, patronize quacks; but *it never puts them on a level with true men.*

It is better to have the opportunity of victory, than to be spared the struggle; for success comes but as the result of arduous experience. The foundations of my success were laid before I can well remember; *it was after at least forty-five years of conscious labor that I reached the object of my hope.* Many a time my head failed me, my hands failed me, my feet failed me, but, thank God, my *heart* never failed me. Because *I knew that no extremity would find God's arm shortened.*

XIX

How Theodore Thomas Brought the People Nearer to Music

MR. THOMAS is an early riser, and as I found him one morning, in his chambers in Chicago, he was preparing to leave for rehearsal. The hale old gentleman actively paced the floor, while I conversed with him.

"Mr. Thomas," I said, "those familiar with the events of your life consider them a lesson of encouragement for earnest and high-minded artists."

"That is kind," he answered.

"I should like, if you will, to have you speak of your work in building up your great orchestra in this country."

"That is too long a story. I would have to begin with my birth."

"Where were you born?" I asked.

"In the kingdom of Hanover, in 1835. My father was a violinist, and from him I inherited my taste, I suppose. He taught me music. When I was only six years old, I played the violin at public concerts.

"I WAS NOT AN INFANT PRODIGY"

"I was not an infant prodigy, however. My father had too much wisdom to injure my chances in that way. He made me keep to my studies in a manner that did me good. I came to America in 1845."

"Was the American music field crowded then?"

"On the contrary, there wasn't any field to speak of. It had to be made. Music was the pastime of a few. The well-educated and fashionable classes possessed or claimed a knowledge of it. There was scarcely any music for the common people."

"How did you get your start in the New York world of music?" I asked.

"With four associates, William Mason, Joseph Mosenthal, George Matzka and Frederick Berguer, I began a series of concerts of Chamber Music, and for many years we conducted this modest artistic enterprise. There was

much musical enthusiasm on our part, but very little reward, except the pleasure we drew from our own playing.

"These Mason and Thomas *soirées* are still remembered by old-time music lovers of New York, not only for their excellence, but for the peculiar character of the audiences. They were quiet little monthly reunions, to which most of the guests came with complimentary tickets. The critics hardly ventured to intrude upon the exercises, and the newspapers gave them little notice."

BEGINNING OF THE ORCHESTRA

"How did you come to found your great orchestra?"

"It was more of a growth than a full-fledged thought to begin with. It was in 1861 that I severed my connection with the opera and began to establish a genuine orchestra. I began with occasional performances, popular matinée concerts, and so on, and, in a few years, was able to give a series of Symphony *Soirées* at the old Irving Hall in New York."

To the average person this work of Mr. Thomas may seem to be neither difficult nor great. Yet while anyone could have collected

a band in a week, to make such an orchestra as Mr. Thomas meant to have, required time and patience. It was when the Philharmonic Society, after living through a great many hardships, was on the full tide of popular favor. Its concerts and rehearsals filled the Academy of Music with the flower of New York society. Powerful social influences had been won to its support, and Carl Bergmann had raised its noble orchestra of one hundred performers to a point of proficiency then quite unexampled in this country, and in some particulars still unsurpassed. Ladies and gentlemen who moved in the best circles hardly noticed the parallel entertainment offered in such a modest way, by Mr. Thomas, on the opposite side of the street. The patrons of his Chamber Concerts, of course, went in to see what the new orchestra was like; professional musicians hurried to the hall with their free passes; and there were a few curious listeners besides who found in the programmes a class of compositions somewhat different from those which Mr. Bergmann chiefly favored, and, in particular, a freshness and novelty in the selections, with an inclination, not yet very strongly marked, toward the modern German school. Among

such of the *dilettanti* as condescended to think of Mr. Thomas at all, there was a vague impression that his concerts were started in opposition to the Philharmonic Society, but that they were not so good and much less genteel.

It is true that Mr. Thomas was surpassed, at that time, by Mr. Bergmann's larger and older orchestra, and that he had much less than an equal share of public favor, but there was no intentional rivalry. The two men had entirely different ideas and worked them out in perfectly original ways. It was only the artist's dismal period of struggle and neglect, which every beginner must pass through. He had to meet cold and meager audiences, and the false judgment of both the critics and the people. Yet he was a singular compound of good American energy and German obstinacy, and he never lost courage.

"Was it a long struggle?" I asked.

"Not very long. Matters soon began to mend. The orchestra improved, the dreadful gaps in the audience soon filled up, and at the end of the year the Symphony *Soirées,* if they made no excitement in musical circles, had at least achieved a high reputation."

"What was your aim, at that time?"

"When I began, I was convinced that there is no music too high for the popular appreciation,—that no scientific education is required for the enjoyment of Beethoven. I believed that it is only necessary that a public whose taste has been vitiated by over-indulgence in trifles, should have time and opportunity to accustom itself to better things. The American people at large then (1864) knew little or nothing of the great composers for the orchestra. Three or four more or less complete organizations had visited the principal cities of the United States in former years, but they made little permanent impression. Juillien had brought over, for his monster concerts, only five or six solo players, and the band was filled up with such material as he found here. The celebrated Germania Band of New York, which had first brought Mr. Bergmann (famous then as the head of the New York Philharmonic Society) into notice, did some admirable work just previous to my start in New York, but it disbanded after six years of vicissitude, and, besides, it was not a complete orchestra."

"You mean," I said, as Mr. Thomas paused meditatively, "that you came at a time when there was a decided opportunity?"

MUSIC HAD NO HOLD ON THE MASSES

"Yes. There had been, and were then, good organizations, such as the New York Philharmonic Society and the Harvard Musical Association in Boston, and a few similar organizations in various parts of the country. I mean no disparagement to their honorable labors, but, in simple truth, none of them had great influence on the masses. They were pioneers of culture. They prepared the way for the modern permanent orchestra."

"They were not important?"

"No, no; that cannot be said. It would be the grossest ingratitude to forget what they did and have done and are still doing, or detract in the smallest degree from their well-earned fame. But from the very nature of their organization, it was inevitable that they should stand a little apart from the common crowd. To the general public, their performances were more like mysterious rites, celebrated behind closed doors, in the presence of a select and unchanging company of believers. Year after year, the same twenty-five hundred people filled the New York Academy of Music

at the Philharmonic concerts, applauding the same class of master works, and growing more and more familiar with the same standards of the strictly classical school. This was no cause for complaint; on the contrary, it was most fortunate that the reverence for the older forms of art and canons of taste were thus kept alive; and we know that, little by little, the culture which the Philharmonic Society diffuses, through the circle of its regular subscribers, spreads beyond that small company, and raises the æsthetic tone of metropolitan life. But I believed then, as I believe now, that it would require generations for this little leaven to leaven the whole mass, and so I undertook to do my part in improving matters by forming an orchestra."

"You wanted to get nearer the people with good music?"

"No, I wanted the people to get nearer to music. I was satisfied that the right course is to begin at the bottom instead of the top, and make the cultivation of symphonic music a popular movement."

"Was the idea of a popular permanent orchestra new at that time?"

"Yes."

"Why was it necessary to effect a permanent orchestra?"

"Why? Because the first step in making music popular was to raise the standard of orchestral performances and increase their frequency. Our country had never possessed a genuine orchestra, for a band of players gathered together at rare intervals for a special purpose does not deserve the name. The musician who marches at the head of a target company all the morning and plays for a dancing party at night, is out of tune with the great masters. To express the deep emotions of Beethoven, the romanticism of Schumann, or the poetry of Liszt, he ought to live in an atmosphere of art, and keep not only his hand in practice, but his mind properly attempered. An orchestra, therefore, ought to be a permanent body, whose members play together every day, under the same conductor, and devote themselves exclusively to genuine music. Nobody had yet attempted to found an orchestra of this kind in America when I began; but I believed it could be done."

WORKING OUT HIS IDEA

"Did you have an idea of a permanent building for your orchestra?"

"Yes. I wanted something more than an ordinary concert-room. The idea needed it. It was to be a place suitable for use at all seasons of the year. There was to be communication in summer with an open garden, and in winter it was to be a perfect auditorium."

Mr. Thomas's idea went even further. It must be bright, comfortable, roomy, well ventilated—for a close and drowsy atmosphere is fatal to symphonic music,—it must offer to the multitude every attraction not inconsistent with musical enjoyment. The stage must be adapted for a variety of performances, for popular summer entertainment as well as the most serious of classical concerts. There, with an uninterrupted course of entertainments, night after night, the whole year round, the noblest work of all the great masters might be worthily presented.

The scheme was never wholly worked out in New York, great as Mr. Thomas's fame became, but it was partially realized in the old Exposition building in Chicago, where he af-

terwards gave his summer concerts, and it is still nearer reality in the present permanent Chicago orchestra, which has the great Auditorium for its home and a $50,000 annual guarantee.

"What were your first steps in this direction?" I asked.

"I began with a series of *al fresco* entertainments in the old Terrace Garden, in June, 1866. They were well patronized; and repeated in 1867. Then, in 1868, we removed to better quarters in Central Park Garden, and things prospered, so that, in 1869, I began those annual tours, which are now so common."

The first itinerary of this kind was not very profitable, but the young conductor fought through it. Each new season improved somewhat, but there were troubles and losses. More than once, the travelers trod close upon the heels of calamity. The cost of moving from place to place was so great that the most careful management was necessary to cover expenses. They could not afford to be idle, even for a night, and the towns capable of furnishing good audiences generally wanted fun. Hence they must travel all day, and Thomas took care that the road should be smoothed

with all obtainable comforts. Special cars on the railways, special attendants to look after the luggage, and lodgings at the best hotels contributed to make the tour tolerably pleasant and easy, so that the men came to their evening work fresh and smiling. They were tied up by freshets and delayed by wrecks; but their fame grew, and the audiences became greater. Thomas's fame as a conductor who could guarantee constant employment permitted him to take his choice of the best players in the country, and he brought over a number of European celebrities as the public taste improved.

Theodore Thomas did another wise thing. He treated New York like a provincial city, giving it a week of music once in a while as he passed through it on his travels. This excited the popular interest, and when he came to stay, the next season, a brilliantly successful series of concerts was the result. At the close, a number of his admirers united in presenting him a rich silver casket, holding a purse of thirty-five hundred dollars, as a testimonial of gratitude for his services. The Brooklyn Philharmonic Society placed itself under his direction. Chicago gave him a fine invitation to attend benefit entertainments to himself; and, when he came,

decked the hall with abundant natural flowers, as if for the reception of a hero. He was successful financially and every other way, and from that time on he merely added to his laurels.

THE CHIEF ELEMENT OF HIS SUCCESS

"What," I asked of him, "do you consider the chief element of your success?"

"That is difficult to say. Perseverance, hard work, stern discipline,—each had its part."

"You have never attempted to become rich?"

"Poh!"

"Do you still believe in the best music for the mass of the people?"

"I do. My success has been with them. It was so in New York; it is so here in Chicago."

"Do you still work as hard as ever?" I inquired.

"Nearly so. The training of a large orchestra never ends. The work must be gone over and over. There is always something new."

"And your life's pleasure lies in this?"

"Wholly so. To render perfect music perfectly—that is enough."

XX

John Burroughs at Home: The Hut on the Hill Top

WHEN I visited the hill-top retreat of John Burroughs, the distinguished writer upon nature, at West Park, New York, it was with the feeling that all success is not material; that mere dollars are nothing, and that the influential man is the successful man, whether he be rich or poor. John Burroughs is unquestionably both influential and poor. Relatively poor: being an owner of some real estate, and having a modest income from copyrights. He is content: knowing when he has enough. On the wooden porch of his little bark-covered cabin I waited, one June afternoon, until he should come back from the woods and fields, where he had gone for a ramble. It was so still that the sound of my rocker moving to and fro on the rough boards of the little porch seemed to shock the perfect quiet.

From afar off came the plaintive cry of a wood-dove, and then all was still again. Presently the interpreter of out-door life appeared in the distance, and, seeing a stranger at his door, hurried homeward. He was without coat or vest and looked cool in his white outing shirt and large straw hat. After some formalities of introduction we reached the subject which I had called to discuss, and he said:—

"It is not customary to interview men of my vocation concerning success."

"Any one who has made a lasting impression on the minds of his contemporaries," I began, "and influenced men and women—"

"Do you refer to me?" he interrupted, naïvely.

I nodded and he laughed. "I have not endowed a university nor made a fortune, nor conquered an enemy in battle," he said.

"And those who have done such things have not written 'Locusts and Wild Honey' and 'Wake Robin.'"

"I recognize," he said quietly, "that success is not always where people think it is. There are many ways of being successful; and I do not approve of the mistake which causes

many to consider that a great fortune acquired means a great success achieved. On the contrary, our greatest men need very little money to accomplish the greatest work."

"I thought that anyone leading a life so wholly at variance with the ordinary ideas and customs would see success in life from a different point of view," I observed. "Money is really no object with you?"

"The subject of wealth never disturbs me."

"You lead a very simple life here."

"Such as you see."

The sight would impress anyone. So far is this disciple of nature away from the ordinary mode of the world, that his little cabin, set in the cup-shaped top of a hill, is practically bare of luxuries and the so called comforts of life. His surroundings are of the rudest, the very rocks and bushes encroaching upon his back door. All about, the crest of the hill encircles him, and shuts out the world. Only the birds of the air venture to invade his retreat from the various sides of the mountain; and there is only one approach by a straggling, narrow path. In his house are no decorations but such as can be hung upon the exposed wood. The fireplace is

of brick, and quite wide; the floor, rough boards scrubbed white; the ceiling, a rough array of exposed rafters; and his bed rudely constructed. Very few and very simple chairs, a plain table and some shelves for books make the wealth of the retreat and serve for his ordinary use.[1]

"Many people," I said, "think that your method of living is an ideal example of the way people ought to live."

"There is nothing remarkable in that. A great many people are very weary of the way they think themselves compelled to live. They are mistaken in believing that the disagreeable things they find themselves doing, are the things they ought to do. A great many take their ideas of a proper aim in life from what other people say and do. Consequently, they are unhappy, and an independent existence such as mine strikes them as ideal. As a matter of fact, it is very natural."

"Would you say that to work so as to be

[1] This hut on the hill-top is situated in an old lake bed, some three hundred yards wide, half filled with peat and decomposed matter, swampy and overgrown. This area was devoted by Mr. Burroughs to the raising of celery for the market, when he set out to earn a living upon the land.

able to live like this should be the aim of a young man?"

"By no means. On the contrary, his aim should be to live in such a way as will give his mind the greatest freedom and peace. This can be very often obtained by wanting less of material things and more of intellectual ones. A man who achieved such an aim would be as well off as the most distinguished man in any field. Money-getting is half a mania, and some other 'getting' propensities are manias also. The man who gets content comes nearest to being reasonable."

"I should like," I said, "to illustrate your point of view from the details of your own life."

"Students of nature do not, as a rule, have eventful lives. I was born at Roxbury, New York, in 1837. That was a time when conditions were rather primitive. My father was a farmer, and I was raised among the woods and fields. I came from an uncultivated, unreading class of society, and grew up among surroundings the least calculated to awaken the literary faculty. I have no doubt that daily contact with the woods and fields awakened my interest in the wonders of nature, and gave

me a bent toward investigation in that direction."[1]

"Did you begin early to make notes and write upon nature?" I questioned.

"Not before I was sixteen or seventeen. Earlier than that, the art of composition had anything but charms for me. I remember that while at school, at the age of fourteen, I was required, like other students, to write 'compositions' at stated times, but I usually evaded the duty one way or another. On one occasion, I copied something from a comic almanac, and unblushingly handed it in as my own. But the teacher detected the fraud, and ordered me to produce a twelve-line composition before I left school. I remember I racked my brain in vain,

[1] "Blessed is he whose youth was passed upon a farm," writes Mr. Burroughs; "and if it was a dairy farm his memories will be all the more fragrant. The driving of the cows to and from the pasture every day and every season for years,—how much of summer and of nature he got into him on these journeys! What rambles and excursions did this errand furnish the excuse for! The birds and birds' nests, the berries, the squirrels, the woodchucks, the beech woods into which the cows loved so to wander and browse, the fragrant wintergreens. and a hundred nameless adventures, all strung upon that brief journey of half a mile to and from the remote pasture."

and the short winter day was almost closing when Jay Gould, who sat in the seat behind me, wrote twelve lines of doggerel on his slate and passed it slyly over to me. I had so little taste for writing that I coolly copied that, and handed it in as my own."

"You were friendly with Gould then?"

"Oh, yes, 'chummy,' they call it now. His father's farm was only a little way from ours, and we were fast friends, going home together every night."

"His view of life must have been considerably different from yours."

"It was. I always looked upon success as being a matter of mind, not money; but Jay wanted the material appearances. I remember that once we had a wrestling match, and as we were about even in strength, we agreed to abide by certain rules,—taking what we called 'holts' in the beginning and not breaking them until one or the other was thrown. I kept to this in the struggle, but when Jay realized that he was in danger of losing the contest, he broke the 'holt' and threw me. When I remarked that he had broken his agreement, he only laughed and said, 'I threw you, didn't I?' And to every objection I made, he made the same

answer. The fact of having won was pleasing to him. It satisfied him, although it wouldn't have contented me."

"Did you ever talk over success in life with him?"

"Yes, quite often. He was bent on making money, and did considerable trading among us schoolboys,—sold me some of his books. I felt then that my view of life was more satisfactory to me than his would have been. I wanted to obtain a competence, and then devote myself to high thinking instead of to money-making.[1]

"How did you plan to attain this end?"

"By study. I began in my sixteenth or seventeenth year to try to express myself on paper, and when, after I had left the country school, I attended the seminary at Ashland and at Cooperstown, I often received the highest

[1] An old schoolmate in the little red schoolhouse has said, that "John and Jay were not like the other boys. They learned their lessons easier; and at recess they looked on the games, but did not join in them. John always knew where to find the largest trout; he could show you birds' nests, and name all the flowers. He was fond of reading, and would walk five miles to borrow a book. Roxbury is proud of John Burroughs. We celebrated 'Burroughs Day' instead of Arbor Day here last spring, in the high-school, in honor of him."

marks in composition, though only standing about the average in general scholarship. My taste ran to essays, and I picked up the great works in that field at a bookstore, from time to time, and filled my mind with the essay idea. I bought the whole of Dr. Johnson's works at a second-hand bookstore in New York, because, on looking into them I found his essays appeared to be solid literature, which I thought was just the thing. Almost my first literary attempts were moral reflections, somewhat in the Johnsonian style."

"You were supporting yourself during these years?"

"I taught six months and 'boarded round' before I went to the seminary. That put fifty dollars into my pocket, and the fifty paid my way at the seminary.[1] Working on the farm,

[1] It was when he was attending the academy, that young Burroughs first saw that wonderful being—a living author:—

"I distinctly remember with what emotion I gazed upon him," he said, "and followed him about in the twilight, keeping on the other side of the street. He was of little account,—a man who had failed as a lawyer, and then had written a history of Poland, which I have never heard of since that time; but to me he was the embodiment of the august spirit of authorship, and I looked upon him with more reverence and enthusiasm

studying and teaching filled up the years until 1863, when I went to Washington and found employment in the Treasury Department."

"You were connected with the Treasury then?"[1]

"Oh, yes; for nearly nine years. I left the department in 1872, to become receiver of a bank, and subsequently for several years I performed the work of a bank examiner. I considered it only as an opportunity to earn and save up a little money on which I could retire. I managed to do that, and came back to this region, where I bought a fruit farm. I worked

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than I had ever before looked upon any man with. I cannot divine why I should have stood in such worshipful fear and awe of this obscure individual, but I suppose it was the instinctive tribute of a timid and imaginative youth to a power he was just beginning to see,—or to feel,—the power of letters."

[1] "My first book, 'Wake-Robin,' was written while I was a government clerk in Washington," says Mr. Burroughs. "It enabled me to live over again the days I had passed with the birds, and in the scenes of my youth. I wrote the book while sitting at a desk in front of an iron wall. I was the keeper of a vault in which many million of bank-notes were stored. During my long periods of leisure, I took refuge in my pen. How my mind reacted from the iron wall in front of me, and sought solace in memories of the birds and of summer fields and woods."

that into paying condition, and then gave all my time to the pursuit of the studies I like."

"Had you abandoned your interest in nature during your Washington life?"

"No. I gave as much time to the study of nature and literature as I had to spare. When I was twenty-three I wrote an essay on 'Expression,' and sent it to the '*Atlantic*.' It was so Emersonian in style, owing to my enthusiasm for Emerson at that time, that the editor thought some one was trying to palm off on him an early essay of Emerson's which he had not seen. He found that Emerson had not published any such paper, however, and printed it, though it had not much merit. I wrote off and on for the magazines."

The editor in question was James Russell Lowell, who, instead of considering it without merit, often expressed afterwards the delight with which he read this contribution from an unknown hand, and the swift impression of the author's future distinction which came to him with that reading.

"Your successful work, then, has been in what direction?" I said.

"In studying nature. It has all come by living close to the plants and animals of the woods

and fields, and coming to understand them. There I have been successful. Men who, like myself, are deficient in self-assertion, or whose personalities are flexible and yielding, make a poor show in business, but in certain other fields these defects become advantages. Certainly it is so in my case. I can succeed with bird or beast, for I have cultivated my ability in that direction. I can look in the eye of an ugly dog or cow and win, but with an ugly man I have less success.

"I consider the desire which most individuals have for the luxuries which money can buy, an error of mind" he added. "Those things do not mean anything except a lack of higher tastes. Such wants are not necessary wants, nor honorable wants. If you cannot get wealth with a noble purpose, it is better to abandon it and get something else. Peace of mind is one of the best things to seek, and finer tastes and feelings. The man who gets these, and maintains himself comfortably, is much more admirable and successful than the man who gets money and neglects these. The realm of power has no fascination for me. I would rather have my seclusion and peace of mind. This log hut, with its bare floors, is sufficient.

I am set down among the beauties of nature, and in no danger of losing the riches that are scattered all about. No one will take my walks or my brook away from me. The flowers, birds and animals are plentifully provided. I have enough to eat and wear, and time to see how beautiful the world is, and to enjoy it. The entire world is after your money, or the things you have bought with your money. It is trying to keep them that makes them seem so precious. I live to broaden and enjoy my own life, believing that in so doing I do what is best for everyone. If I ran after birds only to write about them, I should never have written anything that anyone else would have cared to read. I must write from sympathy and love,—that is, from enjoyment,—or not at all. I come gradually to have a feeling that I want to write upon a given theme. Whenever the subject recurs to me, it awakens a warm, personal response. My confidence that I ought to write comes from the feeling or attraction which some subjects exercise over me. The work is pleasure, and the result gives pleasure."

"And your work as a naturalist is what?"

"Climbing trees to study birds, lying by the waterside to watch the fishes, sitting still in

the grass for hours to study the insects, and tramping here and there, always to observe and study whatever is common to the woods and fields."

"Men think you have done a great work," I said.

"I have done a pleasant work," he said, modestly.

"And the achievements of your schoolmate Gould do not appeal to you as having anything in them worth aiming for?" I questioned.

"Not for me. I think my life is better for having escaped such vast and difficult interests."

The gentle, light-hearted naturalist and recluse came down the long hillside with me, "to put me right" on the main road. I watched him as he retraced his steps up the steep, dark path, lantern in hand. His sixty years sat lightly upon him, and as he ascended I heard him singing. Long after the light melody had died away, I saw the serene little light bobbing up and down in his hand, disappearing and reappearing, as the lone philosopher repaired to his hut and his couch of content.

XXI

Vreeland's Romantic Story: How He Came to Transport a Million Passengers a Day

A SHORT time ago, New York learned with interest and some astonishment, that the head of its greatest transportation system, Herbert H. Vreeland, had received from several of his associates as individuals, a "valentine" present of $100,000, in recognition of his superb management of their properties. Many New Yorkers then learned, for the first time, what railroad experts throughout the country had long known, that the transportation of a million people a day in New York's busy streets, without serious friction or public annoyance, is not a matter of chance, but is the result of perhaps the most perfect traffic organization ever created, at the head of which is a man, quiet, forceful, able,

with the ability of a great general—a master and at the same time, a friend of men,—himself one for whom in the judgment of his associates almost any higher railroad career is possible.

Thirty years ago Mr. Vreeland, then a lad thirteen years old, was, to use his own humorous, reminiscent phrase, "h'isting ice" on the Hudson River, one of a gang of eighteen or twenty men and boys filling the ice carts for retail city delivery. A picture just brought to light, shows him among the force lined up to be photographed, as a tall, loosely built, hatchet-faced lad in working garb, with a fragment of a smile on his face, as if he could appreciate the contrast of the boy of that day with the man of the future.

How do these things happen? What was the divine spark in this boy's brain and heart that should lift him out of the crowd of the commonplace to the position of responsibility and influence in the world which he now occupies? If my readers could have been present at the interview kindly granted by Mr. Vreeland to the writer, and could have heard him recalling his early life and its many struggles and disappointments with a smile that was often near a tear, they would have gone away

feeling that nothing is impossible to him who dares, and, above all else, who *works*, and they would have derived inspiration far greater than can possibly be given in these written words.

"I first entered the railroad business in 1875," said Mr. Vreeland, "shoveling gravel on one of the Long Island Railroad Company's night construction trains. Though this position was humble enough, it was a great thing to me then to feel myself a railroad man, with all that that term implied; and when, after a few months' trial, I was given the job of inspecting ties and roadbed at a dollar a day, I felt that I was well on the road to the presidency.

"One day the superintendent asked my boss if he could give him a reliable man to replace a switchman who had just made a blunder leading to a collision, and had been discharged. The reply was, 'Well, I've got a man named Vreeland here, who will do exactly what you tell him to.' They called me up, and, after a few short, sharp questions from the train-master, I went down to the dreary and desolate marsh near Bushwick, Long Island, and took charge of a switch. For a few days I had to camp out near that switch, in any way that

might happen, but finally the officers made up their minds that they could afford me the luxury of a two-by-four flag-house with a stove in it, and I settled down for more railroading.

" The Bushwick station was not far away, and one of the company's division headquarters was there. I soon made the acquaintance of all the officials around that station, and got into their good graces by offering to help them out in their clerical work at any and all times when I was off duty. It was a godsend to them, and exactly what I wanted, for I had determined to get into the inside of the railroad business from bottom to top. Many's the time I have worked till eleven or twelve o'clock at night in that little station, figuring out train receipts and expenses, engine cost and duty, and freight and passenger statistics of all kinds; and, as a result of this work, I quickly acquired a grasp of railroad details in all stages, which few managers possess, for, in one way and another, I got into and through every branch of the business.

" My Bushwick switch was a temporary one, put in for construction purposes only, and, after some months' use, was discontinued, and I was discharged. This did not suit me at all,

and I went to one of the officials of the road and told him that I wanted to remain with the Long Island Railroad Company in any capacity whatsoever, and would be obliged to him if he would give me a job. He said, at first, that he hadn't a thing for me to do, but finally added, as if he was ashamed to suggest it, that, if I had a mind to go down on another division and sweep out and dust cars, I might do it. I instantly accepted, and thereby learned the details of another important railroad department.

"Pretty soon they made me brakeman on an early morning train to Hempstead, and then I found that I was worth to the world, after two years of railroad training, just forty dollars a month, *plus* a perquisite or two obtained from running a card-table department in the smoking-cars. I remembered that I paid eighteen dollars of my munificent salary for board and lodging, sent twenty dollars home for the support of my mother and sister, and had two dollars a month and the aforesaid perquisites left for 'luxuries.'

"It was about this time, thus early in my career, that I first came to be known as 'President Vreeland.' An old codger upon the railroad, in talking to me one day, said, in a ban-

tering way: 'Well, I suppose you think your fortune is made, now you have become a brakeman, but let me tell you what will happen. You will be a brakeman about four or five years, and then they will make you a conductor, at about one hundred dollars a month, and there you'll stick all your life, if you don't get discharged.' I responded, rather angrily, 'Do you suppose I am going to be satisfied with remaining a conductor? I mean to be president of a railroad.' 'Ho, ho, ho!' laughed the man. He told the story around, and many a time thereafter the boys slyly placed the word 'President' before my name on official instructions and packages sent to me.

"A conductor on one of the regular trains quarreled one morning with the superintendent and was discharged. I was sent for and told to take out that train. This was jumping me over the heads of many of the older brakemen, and, as a consequence, all the brakemen on that train quit. Others were secured, however, and I ran the train regularly for a good many months.

"Then came an accident one day, for which the engineer and I were jointly responsible. We admitted our responsibility, and were dis-

charged. I went again to the superintendent, however, and, upon a strong plea to be retained in the service, he sent me back to the ranks among the brakemen. I had no complaint to make, but accepted the consequence of my mistake.

" Soon after this, the control of the road passed into other hands. Many were discharged, and I was daily expecting my own 'blue envelope.' One day, I was detailed to act as brakeman on a special which was to convey the president and directors of the road, with invited guests, on a trip over the lines. By that time I had learned the Long Island Railroad in all its branches pretty well; and, in the course of the trip, was called upon to answer a great many questions. The next day I received word that the superintendent wanted to see me. My heart sank within me, for summonses of this kind were ominous in those days, but I duly presented myself at the office and was asked, 'Are you the good-looking brakeman who was on the special yesterday who shows his teeth when he smiles?' I modestly replied that I was certainly on the special yesterday, and I may possibly have partly confirmed the rest of the identification by a smile,

for the superintendent, without further questioning, said: 'The president wants to see you, up stairs.'

"I went up, and in due time was shown into the presence of the great man, who eyed me closely for a minute or two, and then asked me abruptly what I was doing. I told him I was braking Number Seventeen. He said: 'Take this letter to your superintendent. It contains a request that he relieve you from duty, and put somebody else in your place. After he has done so, come back here.'

"All this I did, and, on my return to the president, he said, 'Take this letter at once to Admiral Peyron, of the French fleet (then lying in the harbor on a visit of courtesy to this country), and this to General Hancock, on Governor's Island. They contain invitations to each to dine with me to-morrow night at my home in Garden City with their staffs. Get their answers, and, if they say yes, return at once to New York, charter a steamer, call for them to-morrow afternoon, land them at Long Island City, arrange for a special train from Long Island City to Garden City, take them there, and return them after the banquet. I leave everything in your hands. Good day.'

"I suppose this might be considered a rather large job for a common brakeman, but I managed to get through with it without disgracing myself, and apparently to the satisfaction of all concerned. For some time thereafter, I was the president's special emissary on similar matters connected with the general conduct of the business, and while I did not, perhaps, learn so very much about railroading proper, I was put in positions where I learned to take responsibility and came to have confidence in myself.

"The control of the Long Island Railroad again changed hands, and I was again 'let out,' this time for good, so far as that particular road was concerned,—except that, within the last two or three years, I have renewed my acquaintance with it through being commissioned by a banking syndicate in New York City to make an expert examination of its plant and equipment as a preliminary to reorganization.

"This was in 1881, or about that time, and I soon secured a position as conductor on the New York and Northern Railroad, a little line running from One Hundred and Fifty-fifth Street, New York City, to Yonkers. Not to go into tedious detail regarding my experience there, I may say in brief that in course of time

I practically 'ran the road.' After some years, it changed hands (a thing which railways, particularly small ones, often do, and always to the great discomposure of the employees), and the new owners, including William C. Whitney, Daniel S. Lamont, Captain R. Somers Hayes and others, went over the road one day on a special train to visit the property. As I have said, I was then practically running the road, owing to the fact that the man who held the position of general manager was not a railroad man and relied upon me to handle all details, but my actual position was only that of train-master. I accompanied the party, and knowing the road thoroughly, not only physically but also statistically, was able to answer all the questions which they raised. This was the first time I had met Mr. Whitney, and I judge that I made a somewhat favorable impression upon him, for not long after I was created general manager of the road.

"A few months later, I received this telegram:—

'H. H. Vreeland.

'Meet me at Broadway and Seventh Avenue office at two o'clock to-day. William C. Whitney.'

"I had to take a special engine to do this,

but arrived at two o'clock at the office of the Houston Street, West Street and Pavonia Ferry Railroad Company, which I then knew, in an indistinct sort of way, owned a small horse railway in the heart of New York. After finding that Mr. Whitney was out at lunch, I kicked my heels for a few minutes outside the gate, and then inquired of a man who was seated inside in an exceedingly comfortable chair, when Mr. Whitney and his party were expected, saying, also, that my name was Vreeland, and I had an appointment at two. He replied: 'Oh, are you Mr. Vreeland? Well, here is a letter for you. Mr. Whitney expected to be here at two o'clock, but is a little late.' I took my letter and sat down again outside, thinking that it might possibly contain an appointment for another hour. It was, however, an appointment of quite a different character. It read as follows:—

'MR. H. H. VREELAND.

'DEAR SIR:—At a meeting of the stockholders of the Houston Street, West Street and Pavonia Ferry Railroad Company, held this day, you were unanimously elected a director of the company.

'At a subsequent meeting of the directors, you were unanimously elected president and general manager, your duties to commence immediately.

'Yours truly, C. E. WARREN, Secretary.'

"By the time I had recovered from my surprise at learning that I was no longer a steam-railroad, but a street-railroad man, Mr. Whitney and other directors came in, and, after spending about five minutes in introductions, they took up their hats and left, saying, simply, 'Well, Vreeland, you are president; now run the road.' I then set out to learn what kind of a toy railway it was that had come into my charge."

Here Mr. Vreeland's narrative stops, for the rest of the history is well known to the people of New York, and to experts in street railroading throughout the country. The "Whitney syndicate," so called, was then in possession of a few only out of some twenty or more street railway properties in New York City, the Broadway line, however, being one of these, and by far the most valuable. With the immense financial resources of Messrs. Whitney, Widener, Elkins, and their associates, nearly all the other properties were added to the original ones owned by the syndicate, and with the magnificent organizing and executive ability of Mr. Vreeland, there has been built up in New York a street railway system which, while including less than two hundred and fifty miles

of track, is actually carrying more than one-half as many passengers each year as are being carried by all the steam railroads of the United States together.

Mr. Vreeland's first work on coming to New York was, naturally, to familiarize himself with the transportation conditions in New York City, and to learn how to handle the peculiarly complex problems involved in street railroading. He first had to gain, also, the confidence of his men, but this is never hard for anyone who is sincerely solicitous for their welfare, and in such sympathy with their work and hardships as a man like himself must have been, with his own past history in mind.

With his hand firmly on the tiller, and with his scheme of organization perfected, he was soon able to take up the larger questions of administration. To Mr. Vreeland is due the credit of initiating and rapidly extending a general free transfer system in New York, by which the public is able to ride from almost any part of the largest city in the country to any other part, for a single five-cent fare, whereas, before the consolidation, two, three, and sometimes four fares would have to be paid for the same ride.

It was upon Mr. Vreeland's recommendation, also, backed by that of F. S. Pearson, the well-known consulting engineer of the Whitney syndicate, that the latter determined to adopt the underground conduit electric system in the reconstruction of the lines. At that time this decision involved the greatest financial and technical courage, since there was but one other road of this kind in existence, and that a small tramway in an Austrian city, while previous American experience with this system had been uniformly unsuccessful.

Not only in street railroading proper, but also in steam railroading, automobile work and the electric lighting field, Mr. Vreeland possesses the absolute confidence of his associates, who rely implicitly upon his judgment, intelligence and business acumen. The recent gift, already referred to, is one only of several which he has received from men who feel that they have made millions through his ability. Although he is not to-day a wealthy man, as men are counted wealthy in New York City, he is certainly well along on the road to millionairedom.

Best of all, however, and what has probably satisfied him most in his life, has been the host

of genuine friendships which he has made, and the strong hold which he has upon the workingman. A strike of the employees of the Metropolitan Street Railway Company is absolutely impossible so long as he remains at the head of the company's affairs, for the men know well that there will be in that position a man who is always fair, and even generous with them, bearing in mind ever his duty to his stockholders; and they know, too, that no injustice will be committed by any of the department heads. Any one of his four or five thousand employees can meet him personally on a question of grievance, and is sure of being treated as a reasonable fellow man. Time and again have labor leaders sought to form an organization of the Metropolitan employees, and as often the men have said in reply, " Not while Vreeland is here,—we know he will treat us fairly."

In a recent address Mr. Vreeland said:—

" No artificial condition can ever, in my judgment, keep down a man who has health, capacity and honesty. You can temporarily interfere with him or make the road to the object of his ambition more difficult, but you cannot stop him. That tyranny is forever dead,

and since its death there has come a great en·lightenment to the possessors of power and wealth. Instead of preventing a man from rising, there is not a concern the wide world over that is not to-day eagerly seeking for capable people. The great hunger of the time is for good men, strong men, men capable of assuming responsibility; and there is sharp competition for those who are available."

XXII

How James Whitcomb Riley Came to be Master of the Hoosier Dialect

IT is doubtful if there is in the literary world, to-day, a personage whose boyhood and young manhood can approach in romance and unusual circumstances that of the author of "The Old Swimmin' Hole."

All tradition was against his accomplishing anything in the world. How, indeed, said the good folks of the little town of Greenfield, Indiana, could anything be expected of a boy who cared nothing for school, and deserted it at the first opportunity, to take up a wandering life.

THROWN ON HIS OWN RESOURCES

The boy's father wanted the boy to follow in his footsteps, in the legal profession, and he held out alluring hopes of the possibility of

scaling even greater heights than any to which he had yet attained. Better still,—from the standpoint of the restless James,—he took the youngster with him as he made his circuit from court to court.

These excursions, for they were indeed such to the boy, sowed deep in his heart the seed of a determination to become a nomad; and it was not long until he started out as a strolling sign-painter, determined upon the realization of his ideals.

Oftentimes business was worse than dull, and, on one occasion, hunger drove him for recourse to his wits, and lo, he blossomed forth as a "blind sign-painter," led from place to place by a little boy, and showered with sympathy and trade in such abundance that he could hardly bear the thought of the relinquishment of a pretense so ingenious and successful, entered on at first as a joke.

Then came another epoch. The young man fell in with a patent-medicine man, with whom he joined fortunes, and here the young Indianian, who had been scribbling more or less poetry, found a new use for his talent; for his duties in the partnership were to beguile the people with joke and song, while his co-worker

plied the sales of his cure-all. There were many times when, but for his fancy, the young poet might have seen his audience dwindle rapidly away. It was while thus engaged, that he had the opportunities which enabled him to master thoroughly the Hoosier dialect.

When the glamor of the patent-medicine career had faded somewhat, the nomadic Riley joined a band of strolling Thespians, and, in this brief portion of his life, after the wont of players of his class, played many parts.

At length, he began to give a little more attention to his literary work; and, later, obtained a place on an Indianapolis paper, where he published his first poems, and they won their author almost instant success.

WHY HE LONGED TO BE A BAKER

When I drew Mr. Riley out to talk still further of those interesting days, and the strange experiences which came to him therein, the conversation finally turned on the subject of his youthful ambition.

"I think my earliest remembered one," he said, "was an insatiate longing to become a baker. I don't know what prompted it, unless it were the visions of the mountains of alluring

'goodies,' which, as they are ranged in the windows of the pastry shops, appear doubly tempting to the youth whose mother not only counsels moderation, but enforces it.

"Next, I imagined that I would like to become a showman of some sort.

"Then, my shifting fancy conjured up visions of how grand it would be to work as a painter, and decorate houses and fences in glowing colors.

"Finally, as I grew a little older, there returned my old longing to become an actor. When, however, my dreams were realized, and I became a member of a traveling theatrical company, I found that the life was full of hardships, with very little chance of rising in the world.

"I never had any literary ambition whatever, so far as I can remember. I wrote, primarily, simply because I desired to have something to read, and could not find selections that exactly suited me. Gradually I found a demand for my little efforts springing up; and so my brother, who could write legibly transcribed them."

PERSISTENCE

At this point I asked Mr. Riley his idea of the prime requisites for success in the field of letters.

"The most essential factor," he replied "is persistence,—the determination never to allow your energy or enthusiasm to be dampened by the discouragement that must inevitably come. I believe that he is richer for the battle with the world, in any vocation, who has great determination and little talent, rather than his seemingly more fortunate brother with great talent, perhaps, but little determination. As for the field of literature, I cannot but express my conviction that meteoric flights, such as have been taken, of recent years, by some young writers with whose names almost everybody is familiar, cannot fail to be detrimental, unless the man to whom success comes thus early and suddenly is an exceptionally evenly-balanced and sensible person.

"Many persons have spoken to me about Kipling's work, and remarked how wonderful a thing is the fact that such achievements could have been possible for a man comparatively so young. I say, not at all. What do we find

when we investigate? Simply that Kipling began working on a newspaper when he was only thirteen years of age, and he has been toiling ever since. So you see, even that case confirms my theory that every man must be 'tried in the fire,' as it were.

"He may begin early or late—and in some cases the fight is longer than in others—but of one thing I feel sure, that there is no short-cut to permanent, self-satisfying success in literature, or anything else."

TWENTY YEARS OF REJECTED MANUSCRIPTS

"Mr. Riley," I asked, "would you mind saying something about the obstacles over which you climbed to success?"

"I am afraid it would not be a very pleasant story," he replied. "A friend came to me once, completely heartbroken, saying that his manuscripts were constantly returned, and that he was the most miserable wretch alive. I asked him how long he had been trying? 'Three years,' he said. 'My dear man,' I answered, laughing, 'go on, keep on trying till you have spent as many years at it as I did.' 'As many as you did!' he exclaimed. 'Yes, as long as I did.' 'What, you struggled for

years!' 'Yes, sir; through years, through sleepless nights, through almost hopeless days. For twenty years I tried to get into one magazine; back came my manuscripts eternally. I kept on. In the twentieth year, that magazine accepted one of my articles.'

"I was not a believer in the theory that one man does a thing much easier than any other man. Continuous, unflagging effort, persistence and determination will win. Let not the man be discouraged who has these."

"What would you advise one to do with his constantly rejected manuscript?" I asked.

"Put it away awhile; then remodel it. Young writers make the mistake I made."

"What mistake?" I asked.

"Hurrying a manuscript off before it was dry from my pen, as if the world were just waiting for that article and must have it. Now it can hardly be drawn from me with a pair of tweezers. Yes, lay it aside awhile. Reread. There is a rotten spot somewhere. Perhaps it is full of hackneyed phrases, or lacks in sparkle and originality. Search, examine, rewrite, simplify. Make it lucid. *I am glad, now, that my manuscripts did come back.* Presently I would discover this defect, then that.

Perhaps three or four sleepless nights would show my failure to be in an unsymmetrical arrangement of the verses.

" See these books ? " he said, rapping upon the book case with the back of his hand. " Classics ! but of what do they tell ? Of the things of their own day. Let us write the things of our day. Literary fields exhausted ! Nonsense. If we write well enough, ours will be the classics of to-morrow. Our young Americans have, right at hand, the richest material any country ever offered. Let them be brave and work in earnest."

A COLLEGE EDUCATION

Answering other questions, the poet said :— " A college education for the aspirant for literary success is, of course, an advantage, provided he does not let education foster a false culture that will lead him away from the ideals he ought to cling to.

" There is another thing that the young man in any artistic pursuit must have a care for; and that is, to be practical. This is a practical world, and it is always ready to take advantage of this sort of people : so that one must try to cultivate a practical business sense as well as an

artistic sense. We have only a few men like Rudyard Kipling and F. Hopkinson Smith, who seem to combine these diverse elements of character in just the right proportions; but I believe that it is unfortunate for the happiness and peace of mind of our authors, and artists, and musicians, that we have not more of them."

RILEY'S POPULARITY

Riley's poetry is popular because it goes right to the feelings of the people. He could not have written as he does, but for the schooling of that wandering life, which gave him an insight into the struggle for existence among the great unnumbered multitude of his fellow men. He learned in his travels and journeys, in his hard experience as a strolling sign-painter and patent-medicine peddler the freemasonry of poverty. His poems are natural; they are those of a man who feels as he writes. As Thoreau painted nature in the woods, and streams, and lakes, so Riley depicts the incidents of everyday life, and brightens each familiar lineament with that touch that makes all the world akin.

MEMORY

MEMORY

HOW TO DEVELOP, TRAIN AND USE IT

By WILLIAM WALKER ATKINSON

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CHAPTER I.

MEMORY: ITS IMPORTANCE.

It needs very little argument to convince the average thinking person of the great importance of memory, although even then very few begin to realize just how important is the function of the mind that has to do with the retention of mental impressions. The first thought of the average person when he is asked to consider the importance of memory, is its use in the affairs of every-day life, along developed and cultivated lines, as contrasted with the lesser degrees of its development. In short, one generally thinks of memory in its phase of "a good memory" as contrasted with the opposite phase of "a poor memory." But there is a much broader and fuller meaning of the term than that of even this important phase.

It is true that the success of the individual in his every-day business, profession, trade or other occupation depends very materially

upon the possession of a good memory. His value in any walk in life depends to a great extent upon the degree of memory he may have developed. His memory of faces, names, facts, events, circumstances and other things concerning his every-day work is the measure of his ability to accomplish his task. And in the social intercourse of men and women, the possession of a retentive memory, well stocked with available facts, renders its possessor a desirable member of society. And in the higher activities of thought, the memory comes as an invaluable aid to the individual in marshalling the bits and sections of knowledge he may have acquired, and passing them in review before his cognitive faculties —thus does the soul review its mental possessions. As Alexander Smith has said: "A man's real possession is his memory; in nothing else is he rich; in nothing else is he poor." Richter has said: "Memory is the only paradise from which we cannot be driven away. Grant but memory to us, and we can lose nothing by death." Lactantius says: "Memory tempers prosperity, mitigates adversity, controls youth, and delights old age."

But even the above phases of memory represent but a small segment of its complete circle. Memory is more than "a good memory"—it is the means whereby we perform the largest share of our mental work. As Bacon has said: "All knowledge is but remembrance." And Emerson: "Memory is a primary and fundamental faculty, without which none other can work: the cement, the bitumen, the matrix in which the other faculties are embedded. Without it all life and thought were an unrelated succession." And Burke: "There is no faculty of the mind which can bring its energy into effect unless the memory be stored with ideas for it to look upon." And Basile: "Memory is the cabinet of imagination, the treasury of reason, the registry of conscience, and the council chamber of thought." Kant pronounced memory to be "the most wonderful of the faculties." Kay, one of the best authorities on the subject has said, regarding it: "Unless the mind possessed the power of treasuring up and recalling its past experiences, no knowledge of any kind could be acquired. If every sensation, thought, or emotion passed

entirely from the mind the moment it ceased to be present, then it would be as if it had not been; and it could not be recognized or named should it happen to return. Such an one would not only be without knowledge,—without experience gathered from the past,—but without purpose, aim, or plan regarding the future, for these imply knowledge and require memory. Even voluntary motion, or motion for a purpose, could have no existence without memory, for memory is involved in every purpose. Not only the learning of the scholar, but the inspiration of the poet, the genius of the painter, the heroism of the warrior, all depend upon memory. Nay, even consciousness itself could have no existence without memory for every act of consciousness involves a change from a past state to a present, and did the past state vanish the moment it was past, there could be no consciousness of change. Memory, therefore, may be said to be involved in all conscious existence—a property of every conscious being!"

In the building of character and individuality, the memory plays an important part, for

upon the strength of the impressions received, and the firmness with which they are retained, depends the fibre of character and individuality. Our experiences are indeed the stepping stones to greater attainments, and at the same time our guides and protectors from danger. If the memory serves us well in this respect we are saved the pain of repeating the mistakes of the past, and may also profit by remembering and thus avoiding the mistakes of others. As Beattie says: "When memory is preternaturally defective, experience and knowledge will be deficient in proportion, and imprudent conduct and absurd opinion are the necessary consequence." Bain says: "A character retaining a feeble hold of bitter experience, or genuine delight, and unable to revive afterwards the impression of the time is in reality the victim of an intellectual weakness under the guise of a moral weakness. To have constantly before us an estimate of the things that affect us, true to the reality, is one precious condition for having our will always stimulated with an accurate reference to our happiness. The thoroughly edu-

cated man, in this respect, is he that can carry with him at all times the exact estimate of what he has enjoyed or suffered from every object that has ever affected him, and in case of encounter can present to the enemy as strong a front as if he were under the genuine impression. A full and accurate memory, for pleasure or for pain, is the intellectual basis both of prudence as regards self, and sympathy as regards others."

So, we see that the cultivation of the memory is far more than the cultivation and development of a single mental faculty—it is the cultivation and development of our entire mental being—the development of our *selves*.

To many persons the words memory, recollection, and remembrance, have the same meaning, but there is a great difference in the exact shade of meaning of each term. The student of this book should make the distinction between the terms, for by so doing he will be better able to grasp the various points of advice and instruction herein given. Let us examine these terms.

Locke in his celebrated work, the "Essay

Concerning Human Understanding" has clearly stated the difference between the meaning of these several terms. He says: "Memory is the power to revive again in our minds those ideas which after imprinting, have disappeared, or have been laid aside out of sight—when an idea again recurs without the operation of the like object on the external sensory, it is *remembrance;* if it be sought after by the mind, and with pain and endeavor found, and brought again into view, it is *recollection.*" Fuller says, commenting on this: "Memory is the power of reproducing in the mind former impressions, or percepts. Remembrance and Recollection are the exercise of that power, the former being involuntary or spontaneous, the latter volitional. We remember because we cannot help it but we recollect only through positive effort. The act of remembering, taken by itself, is involuntary. In other words, when the mind remembers without having tried to remember, it acts spontaneously. Thus it may be said, in the narrow, contrasted senses of the two terms, that we remember by chance, but recollect by intention, and if the endeavor

be successful that which is reproduced becomes, by the very effort to bring it forth, more firmly intrenched in the mind than ever."

But the New Psychology makes a little different distinction from that of Locke, as given above. It uses the word memory not only in his sense of "The power to revive, etc.," but also in the sense of the activities of the mind which tend to receive and store away the various impressions of the senses, and the ideas conceived by the mind, to the end that they may be reproduced voluntarily, or involuntarily, thereafter. The distinction between remembrance and recollection, as made by Locke, is adopted as correct by The New Psychology.

It has long been recognized that the memory, in all of its phases, is capable of development, culture, training and guidance through intelligent exercise. Like any other faculty of mind, or physical part, muscle or limb, it may be improved and strengthened. But until recent years, the entire efforts of these memory-developers were directed to the strengthening of that phase of the memory

known as "recollection," which, you will remember, Locke defined as an idea or impression "sought after by the mind, and with pain and endeavor found, and brought again into view." The New Psychology goes much further than this. While pointing out the most improved and scientific methods for "re-collecting" the impressions and ideas of the memory, it also instructs the student in the use of the proper methods whereby the memory may be stored with clear and distinct impressions which will, thereafter, flow naturally and involuntarily into the field of consciousness when the mind is thinking upon the associated subject or line of thought; and which may also be "re-collected" by a voluntary effort with far less expenditure of energy than under the old methods and systems.

You will see this idea carried out in detail, as we progress with the various stages of the subject, in this work. You will see that the first thing to do it *to find something to remember;* then to impress that thing clearly and distinctly upon the receptive tablets of the memory; then to exercise the re-

membrance in the direction of bringing out the stored-away facts of the memory; then to acquire the scientific methods of recollecting special items of memory that may be necessary at some special time. This is the natural method in memory cultivation, as opposed to the artificial systems that you will find mentioned in another chapter. It is not only development of the memory, but also development of the mind itself in several of its regions and phases of activity. It is not merely a method of recollecting, but also a method of correct seeing, thinking and remembering. This method recognizes the truth of the verse of the poet, Pope, who said: "Remembrance and reflection how allied! What thin partitions sense from thought divide!"

CHAPTER II.

CULTIVATION OF THE MEMORY.

This book is written with the fundamental intention and idea of pointing out a rational and workable method whereby the memory may be developed, trained and cultivated. Many persons seem to be under the impression that memories are bestowed by nature, in a fixed degree or possibilities, and that little more can be done for them—in short, that memories are born, not made. But the fallacy of any such idea is demonstrated by the investigations and experiments of all the leading authorities, as well as by the results obtained by persons who have developed and cultivated their own memories by individual effort without the assistance of an instructor. But all such improvement, to be real, must be along certain natural lines and in accordance with the well established laws of psychology, instead of along artificial lines and in defiance of psychological principles. Cul-

tivation of the memory is a far different thing from "trick memory," or feats of mental legerdemain if the term is permissible.

Kay says: "That the memory is capable of indefinite improvement, there can be no manner of doubt; but with regard to the means by which this improvement is to be effected mankind are still greatly in ignorance." Dr. Noah Porter says: "The natural as opposed to the artificial memory depends on the relations of sense and the relations of thought,—the spontaneous memory of the eye and the ear availing itself of the obvious conjunctions of objects which are furnished by space and time, and the rational memory of those higher combinations which the rational faculties superinduce upon those lower. The artificial memory proposes to substitute for the natural and necessary relations under which all objects must present and arrange themselves, an entirely new set of relations that are purely arbitrary and mechanical, which excite little or no other interest than that they are to aid us in remembering. It follows that if the mind tasks itself to the special effort of considering objects under these artificial re-

lations, it will give less attention to those which have a direct and legitimate interest for itself.'' Granville says: ''The defects of most methods which have been devised and employed for improving the memory, lies in the fact that while they serve to impress particular subjects on the mind, they do not render the memory, as a whole, ready or attentive.'' Fuller says: ''Surely an art of memory may be made more destructive to natural memory than spectacles are to eyes.'' These opinions of the best authorities might be multiplied indefinitely—the consensus of the best opinion is decidedly against the artificial systems, and in favor of the natural ones.

Natural systems of memory culture are based upon the fundamental conception so well expressed by Helvetius, several centuries ago, when he said: ''The extent of the memory depends, first, on the daily use we make of it; secondly, upon the attention with which we consider the objects we would impress upon it; and, thirdly, upon the order in which we range our ideas.'' This then is the list of the three essentials in the cultivation of the memory: (1) Use and exercise; review

and practice; (2) Attention and Interest; and (3) Intelligent Association.

You will find that in the several chapters of this book dealing with the various phases of memory, we urge, first, last, and all the time, the importance of the use and employment of the memory, in the way of employment, exercise, practice and review work. Like any other mental faculty, or physical function, the memory will tend to atrophy by disuse, and increase, strengthen and develop by rational exercise and employment within the bounds of moderation. You develop a muscle by exercise; you train any special faculty of the mind in the same way; and you must pursue the same method in the case of the memory, if you would develop it. Nature's laws are constant, and bear a close analogy to each other. You will also notice the great stress that we lay upon the use of the faculty of attention, accompanied by interest. By attention you acquire the impressions that you file away in your mental record-file of memory. And the degree of attention regulates the depth, clearness and strength of the impression. Without a good

record, you cannot expect to obtain a good reproduction of it. A poor phonographic record results in a poor reproduction, and the rule applies in the case of the memory as well. You will also notice that we explain the laws of association, and the principles which govern the subject, as well as the methods whereby the proper associations may be made. Every association that you weld to an idea or an impression, serves as a cross-reference in the index, whereby the thing is found by remembrance or recollection when it is needed. We call your attention to the fact that one's entire education depends for its efficiency upon this law of association. It is a most important feature in the rational cultivation of the memory, while at the same time being the bane of the artificial systems. Natural associations educate, while artificial ones tend to weaken the powers of the mind, if carried to any great length.

There is no Royal Road to Memory. The cultivation of the memory depends upon the practice along certain scientific lines according to well established psychological laws. Those who hope for a sure "short cut" will

be disappointed, for none such exists. As Halleck says: "The student ought not to be disappointed to find that memory is no exception to the rule of improvement by proper methodical and long continued exercise. There is no royal road, no short cut, to the improvement of either mind or muscle. But the student who follows the rules which psychology has laid down may know that he is walking in the shortest path, and not wandering aimlessly about. Using these rules, he will advance much faster than those without chart, compass, or pilot. He will find mnemonics of extremely limited use. Improvement comes by orderly steps. Methods that dazzle at first sight never give solid results."

The student is urged to pay attention to what we have to say in other chapters of the book upon the subjects of attention and association. It is not necessary to state here the particulars that we mention there. The cultivation of the attention is a prerequisite for good memory, and deficiency in this respect means deficiency not only in the field of memory but also in the general field of mental work. In all branches of The New

Psychology there is found a constant repetition of the injunction to cultivate the faculty of attention and concentration. Halleck says: "Haziness of perception lies at the root of many a bad memory. If perception is definite, the first step has been taken toward insuring a good memory. If the first impression is vivid, its effect upon the brain cells is more lasting. All persons ought to practice their visualizing power. This will react upon perception and make it more definite. Visualizing will also form a brain habit of remembering things pictorially, and hence more exactly."

The subject of association must also receive its proper share of attention, for it is by means of association that the stored away records of the memory may be recovered or re-collected. As Blackie says: "Nothing helps the mind so much as order and classification. Classes are few, individuals many: to know the class well is to know what is most essential in the character of the individual, and what burdens the memory least to retain." And as Halleck says regarding the subject of association by relation: "When-

ever we can discover any relation between facts, it is far easier to remember them. The intelligent law of memory may be summed up in these words: Endeavor to link by some thought relation each new mental acquisition to an old one. Bind new facts to other facts by relations of similarity, cause and effect, whole and part, or by any logical relation, and we shall find that when an idea occurs to us, a host of related ideas will flow into the mind. If we wish to prepare a speech or write an article on any subject, pertinent illustrations will suggest themselves. The person whose memory is merely contiguous will wonder how we think of them.''

In your study for the cultivation of the memory, along the lines laid down in this book, you have read the first chapter thereof and have informed yourself thoroughly regarding the importance of the memory to the individual, and what a large part it plays in the entire work of the mind. Now carefully read the third chapter and acquaint yourself with the possibilities in the direction of cultivating the memory to a high degree, as evidenced by the instances related of the extreme

case of development noted therein. Then study the chapter on memory systems, and realize that the only true method is the natural method, which requires work, patience and practice—then make up your mind that you will follow this plan as far as it will take you. Then acquaint yourself with the secret of memory—the subconscious region of the mind, in which the records of memory are kept, stored away and indexed, and in which the little mental office-boys are busily at work. This will give you the key to the method. Then take up the two chapters on attention, and association, respectively, and acquaint yourself with these important principles. Then study the chapter on the phases of memory, and take mental stock of yourself, determining in which phase of memory you are strongest, and in which you need development. Then read the two chapters on training the eye and ear, respectively—you need this instruction. Then read over the several chapters on the training of the special phases of the memory, whether you need them or not —you may find something of importance in them. Then read the concluding chapter,

which gives you some general advice and parting instruction. Then return to the chapters dealing with the particular phases of memory in which you have decided to develop yourself, studying the details of the instruction carefully until you know every point of it. Then, most important of all—*get to work.* The rest is a matter of practice, practice, practice, and rehearsal. Go back to the chapters from time to time, and refresh your mind regarding the details. Re-read each chapter at intervals. Make the book your own, in every sense of the word, by absorbing its contents.

CHAPTER III.

CELEBRATED CASES OF MEMORY.

In order that the student may appreciate the marvelous extent of development possible to the memory, we have thought it advisable to mention a number of celebrated cases, past and present. In so doing we have no desire to hold up these cases as worthy of imitation, for they are exceptional and not necessary in every-day life. We mention them merely to show to what wonderful extent development along these lines is possible.

In India, in the past, the sacred books were committed to memory, and handed down from teacher to student, for ages. And even to-day it is no uncommon thing for the student to be able to repeat, word for word, some voluminous religious work equal in extent to the New Testament. Max Muller states that the entire text and glossary of Panini's Sanscrit grammar, equal in extent to the entire Bible, were handed down orally for several centuries

before being committed to writing. There are Brahmins to-day who have committed to memory, and who can repeat at will, the entire collection of religious poems known as the *Mahabarata,* consisting of over 300,000 *slokas* or verses. Leland states that, "the Slavonian minstrels of the present day have by heart with remarkable accuracy immensely long epic poems. I have found the same among Algonquin Indians whose sagas or mythic legends are interminable, and yet are committed word by word accurately. I have heard in England of a lady ninety years of age whose memory was miraculous, and of which extraordinary instances are narrated by her friends. She attributed it to the fact that when young she had been made to learn a verse from the Bible every day, and then constantly review it. As her memory improved, she learned more, the result being that in the end she could repeat from memory any verse or chapter called for in the whole Scripture."

It is related that Mithridates, the ancient warrior-king, knew the name of every soldier in his great army, and conversed fluently in

twenty-two dialects. Pliny relates that Charmides could repeat the contents of every book in his large library. Hortensius, the Roman orator, had a remarkable memory which enabled him to retain and recollect the exact words of his opponent's argument, without making a single notation. On a wager, he attended a great auction sale which lasted over an entire day, and then called off in their proper order every object sold, the name of its purchaser, and the price thereof. Seneca is said to have acquired the ability to memorize several thousand proper names, and to repeat them in the order in which they had been given him, and also to reverse the order and call off the list backward. He also accomplished the feat of listening to several hundred persons, each of whom gave him a verse; memorizing the same as they proceeded; and then repeating them word for word in the exact order of their delivery—and then reversing the process, with complete success. Eusebius stated that only the memory of Esdras saved the Hebrew Scriptures to the world, for when the Chaldeans destroyed the manuscripts Esdras was able

to repeat them, word by word to the scribes, who then reproduced them. The Mohammedan scholars are able to repeat the entire text of the Koran, letter perfect. Scaliger committed the entire text of the Iliad and the Odyssey, in three weeks. Ben Jonson is said to have been able to repeat all of his own works from memory, with the greatest ease.

Bulwer could repeat the Odes of Horace from memory. Pascal could repeat the entire Bible, from beginning to end, as well as being able to recall any given paragraph, verse, line, or chapter. Landor is said to have read a book but once, when he would dispose of it, having impressed it upon his memory, to be recalled years after, if necessary. Byron could recite all of his own poems. Buffon could repeat his works from beginning to end. Bryant possessed the same ability to repeat his own works. Bishop Saunderson could repeat the greater part of Juvenal and Perseus, all of Tully, and all of Horace. Fedosova, a Russian peasant, could repeat over 25,000 poems, folk-songs, legends, fairy-tales, war stories, etc., when she was over seventy

years of age. The celebrated "Blind Alick," an aged Scottish beggar, could repeat any verse in the Bible called for, as well as the entire text of all the chapters and books. The newspapers, a few years ago, contained the accounts of a man named Clark who lived in New York City. He is said to have been able to give the exact presidential vote in each State of the Union since the first election. He could give the population in every town of any size in the world either present or in the past providing there was a record of the same. He could quote from Shakespeare for hours at a time beginning at any given point in any play. He could recite the entire text of the Iliad in the original Greek.

The historical case of the unnamed Dutchman is known to all students of memory. This man is said to have been able to take up a fresh newspaper; to read it all through, including the advertisements; and then to repeat its contents, word for word, from beginning to end. On one occasion he is said to have heaped wonder upon wonder, by repeating the contents of the paper backward, be-

ginning with the last word and ending with the first. Lyon, the English actor, is said to have duplicated this feat, using a large London paper and including the market quotations, reports of the debates in Parliament, the railroad time-tables and the advertisements. A London waiter is said to have performed a similar feat, on a wager, he memorizing and correctly repeating the contents of an eight-page paper. One of the most remarkable instances of extraordinary memory known to history is that of the child Christian Meinecken. When less than four years of age he could repeat the entire Bible; two hundred hymns; five thousand Latin words; and much ecclesiastical history, theory, dogmas, arguments; and an encyclopædic quantity of theological literature. He is said to have practically retained every word that was read to him. His case was abnormal, and he died at an early age.

John Stuart Mill is said to have acquired a fair knowledge of Greek, at the age of three years, and to have memorized Hume, Gibbon, and other historians, at the age of eight.

Shortly after he mastered and memorized Herodotus, Xenophon, some of Socrates, and six of Plato's "Dialogues." Richard Porson is said to have memorized the entire text of Homer, Horace, Cicero, Virgil, Livy, Shakespeare, Milton, and Gibbon. He is said to have been able to memorize any ordinary novel at one careful reading; and to have several times performed the feat of memorizing the entire contents of some English monthly review. De Rossi was able to perform the feat of repeating a hundred lines from any of the four great Italian poets, provided he was given a line at random from their works—his hundred lines following immediately after the given line. Of course this feat required the memorizing of the entire works of those poets, and the ability to take up the repetition from any given point, the latter feature being as remarkable as the former. There have been cases of printers being able to repeat, word for word, books of which they had set the type. Professor Lawson was able to teach his classes on the Scriptures without referring to the book. He

claimed that if the entire stock of Bibles were to be destroyed, he could restore the book entire, from his memory.

Rev. Thomas Fuller is said to have been able to walk down a long London street, reading the names of the signs on both sides; then recalling them in the order in which they had been seen, and then by reversing the order. There are many cases on record of persons who memorized the words of every known tongue of civilization, as well as a great number of dialects, languages, and tongues of savage races. Bossuet had memorized the entire Bible, and Homer, Horace and Virgil beside. Niebuhr, the historian, was once employed in a government office, the records of which were destroyed. He, thereupon, restored the entire contents of the book of records which he had written—all from his memory. Asa Gray knew the names of ten thousand plants. Milton had a vocabulary of twenty thousand words, and Shakespeare one of twenty-five thousand. Cuvier and Agassiz are said to have memorized lists of several thousand species and varieties of ani-

mals. Magliabechi, the librarian of Florence, is said to have known the location of every volume in the large library of which he was in charge; and the complete list of works along certain lines in all the other great libraries. He once claimed that he was able to repeat titles of over a half-million of books in many languages, and upon many subjects.

In nearly every walk of life are to be found persons with memories wonderfully developed along the lines of their particular occupation. Librarians possess this faculty to an unusual degree. Skilled workers in the finer lines of manufacture also manifest a wonderful memory for the tiny parts of the manufactured article, etc. Bank officers have a wonderful memory for names and faces. Some lawyers are able to recall cases quoted in the authorities, years after they have read them. Perhaps the most common, and yet the most remarkable, instances of memorizing in one's daily work is to be found in the cases of the theatrical profession. In some cases members of stock companies must not only be able to repeat the lines of the play

they are engaged in acting at the time, but also the one that they are rehearsing for the following week, and possibly the one for the second week. And in repertoire companies the actors are required to be "letter-perfect" in a dozen or more plays—surely a wonderful feat, and yet one so common that no notice is given to it.

In some of the celebrated cases, the degree of recollection manifested is undoubtedly abnormal, but in the majority of the cases it may be seen that the result has been obtained only by the use of natural methods and persistent exercise. That wonderful memories may be acquired by anyone who will devote to the task patience, time and work, is a fact generally acknowledged by all students of the subject. It is not a *gift*, but something to be won by effort and work along scientific lines.

CHAPTER IV.

MEMORY SYSTEMS.

The subject of Memory Development is not a new one by any means. For two thousand years, at least, there has been much thought devoted to the subject; many books written thereupon; and many methods or "systems" invented, the purpose of which has been the artificial training of the memory. Instead of endeavoring to develop the memory by scientific training and rational practice and exercise along natural lines, there seems to have always been an idea that one could improve on Nature's methods, and that a plan might be devised by the use of some "trick" the memory might be taught to give up her hidden treasures. The law of Association has been used in the majority of these systems, often to a ridiculous degree. Fanciful systems have been built up, all artificial in their character and nature, the use of which to any great extent is calculated to result in a decrease of

the natural powers of remembrance and recollection, just as in the case of natural "aids" to the physical system there is always found a decrease in the natural powers. Nature prefers to do her own work, unaided. She may be trained, led, directed and harnessed, but she insists upon doing the work herself, or dropping the task. The principle of Association is an important one, and forms a part of natural memory training, and should be so used. But when pressed into service in many of the artificial systems, the result is the erection of a complex and unnatural mental mechanism which is no more an improvement upon the natural methods, than a wooden leg is an improvement upon the original limb. There are many points in some of these "systems" which may be employed to advantage in natural memory training, by divorcing them from their fantastic rules and complex arrangement. We ask you to run over the list of the principal "systems" with us, that you may discard the useless material by recognizing it as such; and cull the valuable for your own use.

The ancient Greeks were fond of memory systems. Simonides, the Greek poet who lived about 500 B. C. was one of the early authorities, and his work has influenced nearly all of the many memory systems that have sprung up since that time. There is a romantic story connected with the foundation of his system. It is related that the poet was present at a large banquet attended by some of the principal men of the place. He was called out by a message from home, and left before the close of the meal. Shortly after he left, the ceiling of the banquet hall fell upon the guests, killing all present in the room, and mutilating their bodies so terribly that their friends were unable to recognize them. Simonides, having a well-developed memory for places and position, was able to recall the exact order in which each guest had been seated, and therefore was able to aid in the identification of the remains. This occurrence impressed him so forcibly that he devised a system of memory based upon the idea of position, which attained great popularity in Greece, and the

leading writers of the day highly recommended it.

The system of Simonides was based upon the idea of position—it was known as "the topical system." His students were taught to picture in the mind a large building divided into sections, and then into rooms, halls, etc. The thing to be remembered was "visualized" as occupying some certain space or place in that building, the grouping being made according to association and resemblance. When one wished to recall the things to consciousness, all that was necessary was to visualize the mental building and then take an imaginary trip from room to room, calling off the various things as they had been placed. The Greeks thought very highly of this plan, and many variations of it were employed. Cicero said: "By those who would improve the memory, certain places must be fixed upon, and of those things which they desire to keep in memory symbols must be conceived in the mind and ranged, as it were, in those places; thus, the order of places would preserve the order of things, and the symbols

of the things would denote the things themselves; so that we should use the places as waxen tablets and the symbols as letters." Quintillian advises students to "fix in their minds places of the greatest possible extent, diversified by considerable variety, such as a large house, for example, divided into many apartments. Whatever is remarkable in it is carefully impressed on the mind, so that the thought may run over every part of it without hesitation or delay. . . . Places we must have, either fancied or selected, and images or symbols which we may invent at pleasure. These symbols are marks by which we may distinguish the particulars which we have to get by heart."

Many modern systems have been erected upon the foundation of Simonides and in some of which cases students have been charged high prices "for the secret." The following outline given by Kay gives the "secret" of many a high priced system of this class: "Select a number of rooms, and divide the walls and floor of each, in imagination, into nine equal parts or squares, three in a row. On

the front wall—that opposite the entrance—of the first room, are the units; on the right-hand wall the tens; on the left hand the twenties; on the fourth wall the thirties; and on the floor the forties. Numbers 10, 20, 30 and 40, each find a place on the roof above their respective walls, while 50 occupies the centre of the room. One room will thus furnish 50 places, and ten rooms as many as 500. Having fixed these clearly in the mind, so as to be able readily and at once to tell exactly the position of each place or number, it is then necessary to associate with each of them some familiar object (or symbol) so that the object being suggested its place may be instantly remembered, or when the place be before the mind its object may immediately spring up. When this has been done thoroughly, the objects can be run over in any order from beginning to end, or from end to beginning, or the place of any particular one can at once be given. All that is further necessary is to associate the ideas we wish to remember with the objects in the various places, by which means they are easily remembered, and can

be gone over in any order. In this way one may learn to repeat several hundred disconnected words or ideas in any order after hearing them only once." We do not consider it necessary to argue in detail the fact that this system is artificial and cumbersome to a great degree. While the idea of "position" may be employed to some advantage in grouping together in the memory several associated facts, ideas, or words, still the idea of employing a process such as the above in the ordinary affairs of life is ridiculous, and any system based upon it has a value only as a curiosity, or a mental acrobatic feat.

Akin to the above is the idea underlying many other "systems," and "secret methods"—the idea of Contiguity, in which words are strung together by fanciful connecting links. Feinagle describes this underlying idea, or principle, as follows: "The recollection of them is assisted by associating some idea of relation between the two; and as we find by experience that whatever is ludicrous is calculated to make a strong impression on the mind, the more ridiculous the association

is the better.'' The systems founded upon this idea may be employed to repeat a long string of disconnected words, and similar things, but have but little practical value, notwithstanding the high prices charged for them. They serve merely as curiosities, or methods of performing ''tricks'' to amuse one's friends. Dr. Kothe, a German teacher, about the middle of the nineteenth century founded this last school of memory training, his ideas serving as the foundation for many teachers of high-priced ''systems'' or ''secret methods'' since that time. The above description of Feinagle gives the key to the principle employed. The working of the principle is accomplished by the employment of ''intermediates'' or ''correlatives'' as they are called; for instance, the words ''chimney'' and ''leaf'' would be connected as follows: ''*Chimney*—smoke—wood—tree—*Leaf*.''

Then there are systems or methods based on the old principle of the ''Figure Alphabet,'' in which one is taught to remember dates by associating them with letters or words. For instance, one of the teachers of

this class of systems, wished his pupils to remember the year 1480 by the word "BiG RaT," the capitals representing the figures in the date. Comment is unnecessary!

The student will find that nearly all the "systems" or "secret methods" that are being offered for sale in "courses," often at a very high price, are merely variations, improvements upon, or combinations of the three forms of artificial methods named above. New changes are constantly being worked on these old plans; new tunes played on the same old instruments; new chimes sounded from the same old bells. And the result is ever the same, in these cases—disappointment and disgust. There are a few natural systems on the market, nearly all of which contain information and instruction that makes them worth the price at which they are sold. As for the others—well, judge for yourself after purchasing them, if you so desire.

Regarding these artificial and fanciful systems, Kay says: "All such systems for the improvement of the memory belong to what

we have considered the first or lowest form of it. They are for the most part based on light or foolish associations which have little foundation in nature, and are hence of little practical utility; and they do not tend to improve or strengthen the memory as a whole." Bacon says that these systems are "barren and useless," adding: "For immediately to repeat a multitude of names or words once repeated before, I esteem no more than rope-dancing, antic postures, and feats of activity; and, indeed, they are nearly the same things, the one being the abuse of the bodily as the other of the mental powers; and though they may cause admiration, they cannot be highly esteemed." And as another authority has said: "The systems of mnemonics as taught, are no better than crutches, useful to those who cannot walk, but impediments and hindrances to those who have the use of their limbs, and who only require to exercise them properly in order to have the full use of them."

In this work, there shall be no attempt to teach any of these "trick systems" that the

student may perform for the amusement of his friends. Instead, there is only the desire to aid in developing the power to receive impressions, to register them upon the memory, and readily to reproduce them at will, naturally and easily. The lines of natural mental action will be followed throughout. The idea of this work is not to teach how one may perform "feats" of memory; but, instead, to instruct in the intelligent and practical use of the memory in the affairs of every-day life and work.

CHAPTER V.

THE SUBCONSCIOUS RECORD-FILE.

The old writers on the subject were wont to consider the memory as a separate faculty of the mind, but this idea disappeared before the advancing tide of knowledge which resulted in the acceptance of the conception now known as The New Psychology. This new conception recognizes the existence of a vast "out of consciousness" region of the mind, one phase of which is known as the subconscious mind, or the subconscious field of mental activities. In this field of mentation the activities of memory have their seat. A careful consideration of the subject brings the certainty that the entire work of the memory is performed in this subconscious region of the mind. Only when the subconscious record is represented to the conscious field, and recollection or remembrance results, does the memorized idea or impression emerge from the subconscious region. An understanding of

this fact simplifies the entire subject of the memory, and enables us to perfect plans and methods whereby the memory may be developed, improved and trained, by means of the direction of the subconscious activities by the use of the conscious faculties and the will.

Hering says: "Memory is a faculty not only of our conscious states, but also, and much more so, of our unconscious ones." Kay says: "It is impossible to understand the true nature of memory, or how to train it aright, unless we have a clear conception of the fact that there is much in the mind of which we are unconscious. . . . The highest form of memory, as of all the mental powers, is the unconscious—when what we wish to recall comes to us spontaneously, without any conscious thought or search for it. Frequently when we wish to recall something that has previously been in the mind we are unable to do so by any conscious effort of the will; but we turn the attention to something else, and after a time the desired information comes up spontaneously when we are not consciously thinking of it." Carpen-

ter says: "There is the working of a mechanism beneath the consciousness which, when once set going, runs on of itself, and which is more likely to evolve the desired result when the conscious activity of the mind is exerted in a direction altogether different."

This subconscious region of the mind is the great record-file of everything we have ever experienced, thought or known. Everything is recorded there. The best authorities now generally agree that there is no such thing as an absolute forgetting of even the most minute impression, notwithstanding the fact that we may be unable to recollect or remember it, owing to its faintness, or lack of associated "indexing." It is held that everything is to be found in that subconscious index-file, if we can only manage to find its place. Kay says: "In like manner we believe that every impression or thought that has once been before consciousness remains ever afterward impressed upon the mind. It may never again come up before consciousness, but it will doubtless remain in that vast ultra-conscious region of the mind, uncon-

sciously moulding and fashioning our subsequent thoughts and actions. It is only a small part of what exists in the mind that we are conscious of. There is always much that is known to be in the mind that exists in it unconsciously, and must be stored away somewhere. We may be able to recall it into consciousness when we wish to do so; but at other times the mind is unconscious of its existence. Further, every one's experience must tell him that there is much in his mind that he cannot always recall when he may wish to do so,—much that he can recover only after a labored search, or that he may search for in vain at the time, but which may occur to him afterwards when perhaps he is not thinking about it. Again, much that we probably would never be able to recall, or that would not recur to us under ordinary circumstances, we may remember to have had in the mind when it is mentioned to us by others. In such a case there must still have remained some trace or scintilla of it in the mind before we could recognize it as having been there before."

Morell says: "We have every reason to believe that mental power when once called forth follows the analogy of everything we see in the material universe in the fact of its perpetuity. Every single effort of mind is a creation which can never go back again into nonentity. It may slumber in the depths of forgetfulness as light and heat slumber in the coal seams, but there it is, ready at the bidding of some appropriate stimulus to come again out of the darkness into the light of consciousness." Beattie says: "That which has been long forgotten, nay, that which we have often in vain endeavored to recollect, will sometimes without an effort of ours occur to us on a sudden, and, if I may so speak, of its own accord." Hamilton says: "The mind frequently contains whole systems of knowledge which, though in our normal state they may have faded into absolute oblivion, may in certain abnormal states, as madness, delirium, somnambulism, catalepsy, etc., flash out into luminous consciousness. . . .For example, there are cases in which the extinct memory of whole languages were suddenly re-

stored.'' Lecky says: ''It is now fully established that a multitude of events which are so completely forgotten that no effort of the will can revive them, and that the statement of them calls up no reminiscences, may nevertheless be, so to speak, embedded in the memory, and may be reproduced with intense vividness under certain physical conditions.''

In proof of the above, the authorities give many instances recorded in scientific annals. Coleridge relates the well-known case of the old woman who could neither read nor write, who when in the delirium of fever incessantly recited in very pompous tones long passages from the Latin, Greek and Hebrew, with a distinct enunciation and precise rendition. Notes of her ravings were taken down by shorthand, and caused much wonderment, until it was afterwards found that in her youth she had been employed as a servant in the house of a clergyman who was in the habit of walking up and down in his study reading aloud from his favorite classical and religious writers. In his books were found marked passages corresponding to the notes taken

from the girl's ravings. Her subconscious memory had stored up the sounds of these passages heard in her early youth, but of which she had no recollection in her normal state. Beaufort, describing his sensations just before being rescued from drowning says: "Every incident of my former life seemed to glance across my recollection in a retrograde procession, not in mere outline, but in a picture filled with every minute and collateral feature, thus forming a panoramic view of my whole existence."

Kay truly observes: "By adopting the opinion that every thought or impression that had once been consciously before the mind is ever afterwards retained, we obtain light on many obscure mental phenomena; and especially do we draw from it the conclusion of the perfectibility of the memory to an almost unlimited extent. We cannot doubt that, could we penetrate to the lowest depths of our mental nature, we should there find traces of every impression we have received, every thought we have entertained, and every act we have done through our past life, each one

making its influence felt in the way of building up our present knowledge, or in guiding our every-day actions; and if they persist in the mind, might it not be possible to recall most if not all of them into consciousness when we wished to do so, if our memories or powers of recollection were what they should be?"

As we have said, this great subconscious region of the mind—this Memory region—may be thought of as a great record file, with an intricate system of indexes, and office boys whose business it is to file away the records; to index them; and to find them when needed. The records record only what we have impressed upon them by the attention, the degree of depth and clearness depending entirely upon the degree of attention which we bestowed upon the original impression. We can never expect to have the office boys of the memory bring up anything that they have not been given to file away. The indexing, and cross-references are supplied by the association existing between the various impressions. The more cross-references, or as-

sociations that are connected with an idea, thought or impression that is filed away in the memory, the greater the chances of it being found readily when wanted. These two features of attention and association, and the parts they play in the phenomena of memory, are mentioned in detail in other chapters of this book.

These little office boys of the memory are an industrious and willing lot of little chaps, but like all boys they do their best work when kept in practice. Idleness and lack of exercise cause them to become slothful and careless, and forgetful of the records under their charge. A little fresh exercise and work soon take the cobwebs out of their brains, and they spring eagerly to their tasks. They become familiar with their work when exercised properly, and soon become very expert. They have a tendency to remember, on their own part, and when a certain record is called for often they grow accustomed to its place, and can find it without referring to the indexes at all. But their trouble comes from faint and almost illegible records, caused by poor

attention—these they can scarcely decipher when they do succeed in finding them. Lack of proper indexing by associations causes them much worry and extra work, and sometimes they are unable to find the records at all from this neglect. Often, however, after they have told you that they could not find a thing, and you have left the place in disgust, they will continue their search and hours afterward will surprise you by handing you the desired idea, or impression, which they had found carelessly indexed or improperly filed away. In these chapters you will be helped, if you will carry in your mind these little office boys of the memory record file, and the hard work they have to do for you, much of which is made doubly burdensome by your own neglect and carelessness. Treat these little fellows right and they will work overtime for you, willingly and joyfully. But they need your assistance and encouragement, and an occasional word of praise and commendation.

CHAPTER VI.

ATTENTION.

As we have seen in the preceding chapters, before one can expect to recall or remember a thing, that thing must have been impressed upon the records of his subconsciousness, distinctly and clearly. And the main factor of the recording of impressions is that quality of the mind that we call Attention. All the leading authorities on the subject of memory recognize and teach the value of attention in the cultivation and development of the memory. Tupper says: "Memory, the daughter of Attention, is the teeming mother of wisdom." Lowell says: "Attention is the stuff that Memory is made of, and Memory is accumulated Genius." Hall says: "In the power of fixing the attention lies the most precious of the intellectual habits." Locke says: "When the ideas that offer themselves are taken notice of, and, as it were, registered in the memory, it is Attention." Stewart

says: "The permanence of the impression which anything leaves on the memory, is proportionate to the degree of attention which was originally given to it." Thompson says: "The experiences most permanently impressed upon consciousness are those upon which the greatest amount of attention has been fixed." Beattie says: "The force wherewith anything strikes the mind is generally in proportion to the degree of attention bestowed upon it. The great art of memory is attention. . . . Inattentive people have always bad memories." Kay says: "It is generally held by philosophers that without some degree of attention no impression of any duration could be made on the mind, or laid up in the memory." Hamilton says: "It is a law of the mind that the intensity of the present consciousness determines the vivacity of the future memory; memory and consciousness are thus in the direct ratio of each other. Vivid consciousness, long memory; faint consciousness, short memory; no consciousness, no memory. . . . An act of attention, that is an act of concentration,

seems thus necessary to every exertion of consciousness, as a certain contraction of the pupil is requisite to every exertion of vision. Attention, then, is to consciousness what the contraction of the pupil is to sight, or to the eye of the mind what the microscope or telescope is to the bodily eye. It constitutes the better half of all intellectual power."

We have quoted from the above authorities at considerable length, for the purpose of impressing upon your mind the importance of this subject of Attention. The subconscious regions of the mind are the great storehouses of the mental records of impressions from within and without. Its great systems of filing, recording and indexing these records constitute that which we call memory. But before any of this work is possible, impressions must first have been received. And, as you may see from the quotations just given, these impressions depend upon the power of attention given to the things making the impressions. If there has been given great attention, there will be clear and deep impressions; if there has been given but average attention,

there will be but average impressions; if there has been given but faint attention, there will be but faint impressions; if there has been given no attention, there will be no records.

One of the most common causes of poor attention is to be found in the lack of interest. We are apt to remember the things in which we have been most interested, because in that outpouring of interest there has been a high degree of attention manifested. A man may have a very poor memory for many things, but when it comes to the things in which his interest is involved he often remembers the most minute details. What is called involuntary attention is that form of attention that follows upon interest, curiosity, or desire—no special effort of the will being required in it. What is called voluntary attention is that form of attention that is bestowed upon objects not necesarily interesting, curious, or attractive—this requires the application of the will, and is a mark of a developed character. Every person has more or less involuntary attention, while but few possess devel-

oped voluntary attention. The former is instinctive—the latter comes only by practice and training.

But there is this important point to be remembered, that *interest may be developed by voluntary attention* bestowed and held upon an object. Things that are originally lacking in sufficient interest to attract the involuntary attention may develop a secondary interest if the voluntary attention be placed upon and held upon them. As Halleck says on this point: "When it is said that attention will not take a firm hold on an uninteresting thing, we must not forget that anyone not shallow and fickle can soon discover something interesting in most objects. Here cultivated minds show their especial superiority, for the attention which they are able to give generally ends in finding a pearl in the most uninteresting looking oyster. When an object necessarily loses interest from one point of view, such minds discover in it new attributes. The essence of genius is to present an old thing in new ways, whether it be some force in nature or some aspect of humanity."

It is very difficult to teach another person how to cultivate the attention. This because the whole thing consists so largely in the use of the will, and by faithful practice and persistent application. The first requisite is *the determination to use the will.* You must argue it out with yourself, until you become convinced that it is necessary and desirable for you to acquire the art of voluntary attention —you must convince yourself beyond reasonable doubt. This is the first step and one more difficult than it would seem at first sight. The principal difficulty in it lies in the fact that to do the thing you must do some active earnest thinking, and the majority of people are too lazy to indulge in such mental effort. Having mastered this first step, you must induce a strong burning desire to acquire the art of voluntary attention—you must learn to want it hard. In this way you induce a condition of interest and attractiveness where it was previously lacking. Third and last, you must hold your will firmly and persistently to the task, and practice faithfully.

Begin by turning your attention upon some

uninteresting thing and studying its details until you are able to describe them. This will prove very tiresome at first but you must stick to it. Do not practice too long at a time at first; take a rest and try it again later. You will soon find that it comes easier, and that a new interest is beginning to manifest itself in the task. Examine this book, as practice, learn how many pages there are in it; how many chapters; how many pages in each chapter; the details of type, printing and binding—all the little things about it—so that you could give another person a full account of the minor details of the book. This may seem uninteresting—and so it will be at first—but a little practice will create a new interest in the petty details, and you will be surprised at the number of little things that you will notice. This plan, practiced on many things, in spare hours, will develop the power of voluntary attention and perception in anyone, no matter how deficient he may have been in these things. If you can get some one else to join in the game-task with you, and then each endeavor to excel the other in find-

ing details, the task will be much easier, and better work will be accomplished. Begin to take notice of things about you; the places you visit; the things in the rooms, etc. In this way you will start the habit of "noticing things," which is the first requisite for memory development.

Halleck gives the following excellent advice on this subject: "To look at a thing intelligently is the most difficult of all arts. The first rule for the cultivation of accurate perception is: Do not try to perceive the whole of a complex object at once. Take the human face as an example. A man, holding an important position to which he had been elected, offended many people because he could not remember faces, and hence failed to recognize individuals the second time he met them. His trouble was in looking at the countenance as a whole. When he changed his method of observation, and noticed carefully the nose, mouth, eyes, chin, and color of hair, he at once began to find recognition easier. He was no longer in difficulty of mistaking A for B, since he remembered that the shape of B's

nose was different, or the color of his hair at least three shades lighter. This example shows that another rule can be formulated: Pay careful attention to details. We are perhaps asked to give a minute description of the exterior of a somewhat noted suburban house that we have lately seen. We reply in general terms, giving the size and color of the house. Perhaps we also have an idea of part of the material used in the exterior construction. We are asked to be exact about the shape of the door, porch, roof, chimneys and windows; whether the windows are plain or circular, whether they have cornices, or whether the trimmings around them are of the same material as the rest of the house. A friend, who will be unable to see the house, wishes to know definitely about the angles of the roof, and the way the windows are arranged with reference to them. Unless we can answer these questions exactly, we merely tantalize our friends by telling them we have seen the house. To see an object merely as an undiscriminated mass of something in a certain place, is to do no more than a donkey accomplishes as he trots along."

There are three general rules that may be given in this matter of bestowing the voluntary attention in the direction of actually *seeing* things, instead of merely looking at them. The first is: Make yourself take an interest in the thing. The second: See it as if you were taking note of it in order to repeat its details to a friend—this will force you to "take notice." The third: Give to your subconsciousness a mental command to take note of what you are looking at—say to it; "Here, you take note of this and remember it for me!" This last consists of a peculiar "knack" that can be attained by a little practice—it will "come to you" suddenly after a few trials.

Regarding this third rule whereby the subconsciousness is made to work for you, Charles Leland has the following to say, although he uses it to illustrate another point: "As I understand it, it is a kind of impulse or projection of will into the coming work. I may here illustrate this with a curious fact in physics. If the reader wished to ring a door-bell so as to produce as much sound as pos-

sible, he would probably pull it as far back as he could, and then let it go. But if he would, in letting it go, simply give it a tap with his forefinger, he would actually redouble the sound. Or, to shoot an arrow as far as posible, it is not enough to *merely* draw the bow to its utmost span or tension. If, just as it goes, you will give the bow a quick push, though the effort be trifling, the arrow will fly almost as far again as it would have done without it. Or, if, as is well known in wielding a very sharp sabre, we make the draw cut; that is, if to the blow or chop, as with an axe, we also add a certain slight pull, simultaneously, we can cut through a silk handkerchief or a sheep. Forethought (command to the subconsciousness) is the tap on the bell; the push on the bow; the draw on the sabre. It is the deliberate but yet rapid action of the mind when before dismissing thought, we bid the mind to consequently respond. It is more than merely thinking what we are to do; it is the bidding or ordering the Self to fulfill a task before willing it."

Remember first, last and always, that before you can remember, or recollect, you must first *perceive;* and that perception is possible only through attention, and responds in degree to the later. Therefore, it has truly been said that: "The great Art of Memory is Attention."

CHAPTER VII.

ASSOCIATION.

In the preceding chapters we have seen that in order that a thing may be remembered, it must be impressed clearly upon the mind in the first place; and that in order to obtain a clear impression there must be a manifestation of attention. So much for the recording of the impressions. But when we come to recalling, recollecting or remembering the impressions we are brought face to face with another important law of memory—the law of Association. Association plays a part analogous to the indexing and cross-indexing of a book; a library; or another system in which the aim is to readily find something that has been filed away, or contained in some way in a collection of similar things. As Kay says: "In order that what is in the memory may be recalled or brought again before consciousness, it is necessary that it be regarded in connection, or in association with one or more

other things or ideas, and as a rule the greater the number of other things with which it is associated the greater the likelihood of its recall. The two processes are involved in every act of memory. We must first impress, and then we must associate. Without a clear impression being formed, that which is recalled will be indistinct and inaccurate; and unless it is associated with something else in the mind, it cannot be recalled. If we may suppose an idea existing in the mind by itself, unconnected with any other idea, its recall would be impossible."

All the best authorities recognize and teach the importance of this law of association, in connection with the memory. Abercombie says: "Next to the effect of attention is the remarkable influence produced upon memory by association." Carpenter says: "The recording power of memory mainly depends upon the degree of attention we give to the idea to be remembered. The reproducing power again altogether depends upon the nature of the associations by which the new idea has been linked on to other ideas which

have been previously recorded." Ribot says: "The most fundamental law which regulates psychological phenomena is the law of association. In its comprehensive character it is comparable to the law of attraction in the physical world." Mill says: "That which the law of gravitation is to astronomy; that which the elementary properties of the tissues are to physiology; the law of association of ideas is to psychology." Stewart says: "The connection between memory and the association of ideas is so striking that it has been supposed by some that the whole of the phenomena might be resolved into this principle. The association of ideas connects our various thoughts with each other, so as to present them to the mind in a certain order; but it presupposes the existence of those thoughts in the mind,—in other words it presupposes a faculty of retaining the knowledge which we acquire. On the other hand, it is evident that without the associating principle, the power of retaining our thoughts, and of recognizing them when they occur to us, would have been of little use; for the

most important articles of our knowledge might have remained latent in the mind, even when those occasions presented themselves to which they were immediately applicable."

Association of ideas depends upon two principles known, respectively, as (1) the law of contiguity; and (2) the law of similarity. Association by contiguity is that form of association by which an idea is linked, connected, or associated with the sensation, thought, or idea immediately preceding it, and that which directly follows it. Each idea, or thought, is a link in a great chain of thought being connected with the preceding link and the succeeding link. Association by similarity is that form of association by which an idea, thought, or sensation is linked, connected, or associated with ideas, thoughts, or sensations of a similar kind, which have occurred previously or subsequently. The first form of association is the relation of sequence—the second the relation of kind.

Association by contiguity is the great law of thought, as well as of memory. As Kay says: "The great law of mental association

is that of contiguity, by means of which sensations and ideas that have been in the mind together or in close succession, tend to unite together, or cohere in such a way that the one can afterward recall the other. The connection that naturally subsists between a sensation or idea in the mind, and that which immediately preceded or followed it, is of the strongest and most intimate nature. The two, strictly speaking, are but one, forming one complete thought." As Taine says: "To speak correctly, there is no isolated or separate sensation. A sensation is a state which begins as a continuation of preceding ones, and ends by losing itself in those following it; it is by an arbitrary severing, and for the convenience of language, that we set it apart as we do; its beginning is the end of another, and its ending the beginning of another." As Ribot says: "When we read or hear a sentence, for example, at the commencement of the fifth word something of the fourth word still remains. Association by contiguity may be separated into two sub-classes—contiguity in time; and contiguity in space. In

contiguity in time there is manifested the tendency of the memory to recall the impressions in the same order in which they were received—the first impression suggesting the second, and that the third, and so on. In this way the child learns to repeat the alphabet, and the adult the succeeding lines of a poem. As Priestly says: "In a poem, the end of each preceding word being connected with the beginning of the succeeding one, we can easily repeat them in that order, but we are not able to repeat them backwards till they have been frequently named in that order. Memory of words, or groups of words, depends upon this form of contigious association. Some persons are able to repeat long poems from beginning to end, with perfect ease, but are unable to repeat any particular sentence, or verse, without working down to it from the beginning. Contiguity in space is manifested in forms of recollection or remembrance by "position." Thus by remembering the things connected with the position of a particular thing, we are enabled to recall the thing itself. As we have seen in a pre-

ceding chapter, some forms of memory systems have been based on this law. If you will recall some house or room in which you have been, you will find that you will remember one object after another, in the order of the relative positions, or contiguity in space, or position. Beginning with the front hall, you may travel in memory from one room to another, recalling each with the objects it contains, according to the degree of attention you bestowed upon them originally. Kay says of association by contiguity: "It is on this principle of contiguity that mnemonical systems are constructed, as when what we wish to remember is associated in the mind with a certain object or locality, the ideas associated will at once come up; or when each word or idea is associated with the one immediately preceding it, so that when the one is recalled the other comes up along with it, and thus long lists of names or long passages of books can be readily learnt by heart."

From the foregoing, it will be seen that it is of great importance that we correlate our

impressions with those preceding and following. The more closely knitted together our impressions are, the more closely will they cohere, and the greater will be the facility of remembering or recollecting them. We should endeavor to form our impressions of things so that they will be associated with other impressions, in time and space. Every other thing that is associated in the mind with a given thing, serves as a "loose end" of memory, which if once grasped and followed up will lead us to the thing we desire to recall to mind.

Association by similarity is the linking together of impressions of a similar kind, irrespectve of time and place. Carpenter expresses it as follows: "The law of similarity expresses the general fact that any present state of consciousness tends to revive previous states which are similar to it. . . . Rational or philosophical association is when a fact or statement on which the attention is fixed is associated with some fact previously known, to which it has a relation, or with some subject which it is calculated to illus-

trate." And as Kay says: "The similars may be widely apart in space or in time, but they are brought together and associated through their resemblance to each other. Thus, a circumstance of to-day may recall circumstances of a similar nature that occurred perhaps at very different times, and they will become associated together in the mind, so that afterwards the presence of one will tend to recall the others." Abercrombie says of this phase of association: "The habit of correct association—that is, connecting facts in the mind according to their true relations, and to the manner in which they tend to illustrate each other, is one of the principle means of improving the memory, particularly that kind of memory which is an essential quality of a cultivated mind—namely, that which is founded not upon incidental connections, but on true and important relations."

As Beattie says: "The more relations or likenesses that we find or can establish between objects, the more easily will the view of one lead us to recollect the rest." And as Kay says: "In order to fix a thing in the

memory, we must associate it with something in the mind already, and the more closely that which we wish to remember resembles that with which it is associated, the better is it fixed in the memory, and the more readily is it recalled. If the two strongly resemble each other, or are not to be distinguished from each other, then the association is of the strongest kind. . . . The memory is able to retain and replace a vastly greater number of ideas, if they are associated or arranged on some principle of similarity, than if they are presented merely as isolated facts. It is not by the multitude of ideas, but the want of arrangement among them, that the memory is burdened and its powers weakened." As Arnott says: "The ignorant man may be said to have charged his hundred hooks of knowledge (to use a rude simile), with single objects, while the informed man makes each hook support a long chain to which thousands of kindred and useful things are attached."

We ask each student of this book to acquaint himself with the general idea of the working features of the law of association as

given in this chapter for the reason that much of the instruction to be given under the head of the several phases and classes of memory is based upon an application of the Law of Association, in connection with the law of Attention. These fundamental principles should be clearly grasped before one proceeds to the details of practice and exercise. One should know not only "how" to use the mind and memory in certain ways, but also "why" it is to be used in that particular way. By understanding the "reason of it," one is better able to follow out the directions.

CHAPTER VIII.

PHASES OF MEMORY.

One of the first things apt to be noticed by the student of memory is the fact that there are several different phases of the manifestation of memory. That is to say, that there are several general classes into which the phenomena of memory may be grouped. And accordingly we find some persons quite highly developed in certain phases of memory, and quite deficient in others. If there were but one phase or class of memory, then a person who had developed his memory along any particular line would have at the same time developed it equally along all the other lines. But this is far from being the true state of affairs. We find men who are quite proficient in recalling the impression of faces, while they find it very difficult to recall the names of the persons whose faces they remember. Others can remember faces, and not names. Others have an excellent

recollection of localities, while others are constantly losing themselves. Others remember dates, prices, numbers, and figures generally, while deficient in other forms of recollection. Others remember tales, incidents, anecdotes etc., while forgetting other things. And so on, each person being apt to possess a memory good in some phases, while deficient in others.

The phases of memory may be divided into two general classes, namely (1) Memory of Sense Impressions; and (2) Memory of Ideas. This classification is somewhat arbitrary, for the reason that sense impressions develop into ideas, and ideas are composed to a considerable extent of sense impressions, but in a general way the classification serves its purpose, which is the grouping together of certain phases of the phenomena of memory.

Memory of Sense Impressons of course includes the impressions received from all of the five senses: sight; hearing; taste; touch; and smell. But when we come down to a practical examination of sense impressions retained in the memory, we find that the ma-

jority of such impressions are those obtained through the two respective senses of sight and hearing. The impressions received from the sense of taste, touch and smell, respectively, are comparatively small, except in the cases of certain experts in special lines, whose occupation consists in acquiring a very delicate sense of taste, smell or touch, and correspondingly a fine sense of memory along these particular lines. For instance, the wine-taster and tea-tasters, who are able to distinguish between the various grades of merchandise handled by them, have developed not only very fine senses of taste and smell, but also a remarkable memory of the impressions previously received, the power of discrimination depending as much upon the memory as upon the special sense. In the same way the skilled surgeon as well as the skilled mechanic acquires a fine sense of touch and a correspondingly highly developed memory of touch impressions.

But, as we have said, the greater part of the sense impressions stored away in our memories are those previously received

through the senses of sight and hearing, respectively. The majority of sense impressions, stored away in the memory, have been received more or less involuntarily, that is with the application of but a slight degree of attention. They are more or less indistinct and hazy, and are recalled with difficulty, the remembrance of them generally coming about without conscious effort, according to the law of association. That is, they come principally when we are thinking about something else upon which we have given thought and attention, and with which they have been associated. There is quite a difference between the remembrance of sense impressions received in this way, and those which we record by the bestowal of attention, interest and concentration.

The sense impressions of sight are by far the most numerous in our subconscious storehouse. We are constantly exercising our sense of sight, and receiving thousands of different sight impressions every hour. But the majority of these impressions are but faintly recorded upon the memory, because

we give to them but little attention or interest. But it is astonishing, at times, when we find that when we recall some important event or incident we also recall many faint sight impressions of which we did not dream we had any record. To realize the important part played by sight impressions in the phenomena of memory, recall some particular time or event in your life, and see how many more things that you *saw* are remembered, compared with the number of things that you *heard,* or tasted, or felt or smelled.

Second in number, however, are the impressions received through the sense of hearing, and consequently the memory stores away a great number of sound impressions. In some cases the impressions of sight and sound are joined together, as for instance in the case of words, in which not only the sound but the shape of the letters composing the word, or rather the word-shape itself, are stored away together, and consequently are far more readily remembered or recollected than things of which but one sense impression is recorded. Teachers of memory use

this fact as a means of helping their students to memorize words by speaking them aloud, and then writing them down. Many persons memorize names in this way, the impression of the written word being added to the impression of the sound, thus doubling the record. The more impressions that you can make regarding a thing, the greater are the chances of your easily recollecting it. Likewise it is very important to attach an impression of a weaker sense, to that of a stronger one, in order that the former may be memorized. For instance, if you have a good eye memory, and a poor ear memory, it is well to attach your sound impressions to the sight impressions. And if you have a poor eye memory, and a good ear memory it is important to attach your sight impressions to your sound impressions. In this way you take advantage of the law of association, of which we have told you.

Under the sub-class of sight impressions, are found the smaller divisions of memory known as memory of locality; memory of figures; memory of form; memory of color; and

memory of written or printed words. Under the sub-class of sound impressions are found the smaller divisions of memory known as memory of spoken words; memory of names; memory of stories; memory of music, etc. We shall pay special attention to these forms of memory, in succeeding chapters.

The second general class of memory,—memory of ideas,—includes the memory of facts, events, thoughts, lines of reasoning, etc., and is regarded as higher in the scale than the memory of sense impressions, although not more necessary nor useful to the average person. This form of memory of course accompanies the higher lines of intellectual effort and activities, and constitutes a large part of what is known as true education, that is education which teaches one to think instead of to merely memorize certain things taught in books or lectures.

The well-rounded man, mentally, is he who has developed his memory on all sides, rather than the one who has developed but one special phase of the faculty. It is true that a man's interest and occupation certainly tend

to develop his memory according to his daily needs and requirements, but it is well that he should give to the other parts of his memory field some exercise, in order that he may not grow one-sided. As Halleck has said: "Many persons think that memory is mainly due to sight; but we have as many different kinds of memory as we have senses. To sight, the watermelon is a long greenish body, but this is its least important quality. Sight alone gives the poorest idea of the watermelon. We approach the vine where the fruit is growing, and in order to decide whether it is ripe, we tap the rind and judge by the sound. We must remember that a ripe watermelon has a certain resonance. By passing our hands over the melon, we learn that it has certain touch characteristics. We cut it open and learn the qualities of taste and smell. All this knowledge afforded by the different senses must enter into a perfected memory image. Hence we see that many complex processes go to form an idea of a thing. Napoleon was not content with only hearing a name. He wrote it down, and hav-

ing satisfied his eye memory as well as his ear memory, he threw the paper away."

In this book we shall point out the methods and processes calculated to round out the memory of the student. As a rule his strong phases of memory need but little attention, although even in these a little scientific knowledge will be of use. But in the weaker phases, those phases in which his memory is "poor," he should exert a new energy and activity, to the end that these weaker regions of the memory may be cultivated and fertilized, and well stored with the seed impressions, which will bear a good crop in time. There is no phase, field, or class of memory that is not capable of being highly developed by intelligent application. It requires practice, exercise and work—but the reward is great. Many a man is handicapped by being deficient in certain phases of memory, while proficient in others. The remedy is in his own hands, and we feel that in this book we have given to each the means whereby he may acquire a "good" memory along any or all lines.

CHAPTER IX.

TRAINING THE EYE.

Before the memory can be stored with sight impressions—before the mind can recollect or remember such impressions—the eye must be used under the direction of the attention. We think that we see things when we look at them, but in reality we *see* but few things, in the sense of registering clear and distinct impressions of them upon the tablets of the subconscious mind. We *look at* them rather than *see* them.

Halleck says regarding this "sight without seeing" idea: "A body may be imaged on the retina without insuring perception. There must be an effort to concentrate the attention upon the many things which the world presents to our senses. A man once said to the pupils of a large school, all of whom had seen cows: 'I should like to find out how many of you know whether a cow's ears are above, below, behind, or in front of her horns. I

want only those pupils to raise their hands who are sure about the position and who will promise to give a dollar to charity if they answer wrong.' Only two hands were raised. Their owners had drawn cows and in order to do that had been forced to concentrate their attention upon the animals. Fifteen pupils were sure that they had seen cats climb trees and descend them. There was unanimity of opinion that the cats went up heads first. When asked whether the cats came down head or tail first, the majority were sure that the cats descended as they were never known to do. Any one who had ever noticed the shape of the claws of any beast of prey could have answered the question without seeing an actual descent. Farmers' boys who have often seen cows and horses lie down and rise, are seldom sure whether the animals rise with their fore or hind feet first, or whether the habit of the horse agrees with that of the cow in this respect. The elm tree has about its leaf a peculiarity which all ought to notice the first time they see it, and yet only about five per cent of a certain school could incorporate in a drawing this peculiarity, although

it is so easily outlined on paper. Perception, to achieve satisfactory results, must summon the will to its aid to concentrate the attention. Only the smallest part of what falls upon our senses at any time is actually perceived."

The way to train the mind to receive clear sight-impressions, and therefore to retain them in the memory is simply to concentrate the will and attention upon objects of sight, endeavoring to *see* them plainly and distinctly, and then to practice recalling the details of the object some time afterward. It is astonishing how rapidly one may improve in this respect by a little practice. And it is amazing how great a degree of proficiency in this practice one may attain in a short time. You have doubtless heard the old story of Houdin, the French conjurer, who cultivated his memory of sight impressions by following a simple plan. He started in to practice by observing the number of small objects in the Paris shop windows he could see and remember in one quick glance as he rapidly walked past the window. He followed the plan of noting down on paper the things that he saw and remembered. At first he could

remember but two or three articles in the window. Then he began to see and remember more, and so on, each day adding to his power of perception and memory, until finally he was able to see and remember nearly every small article in a large shop window, after bestowing but one glance upon it. Others have found this plan an excellent one, and have developed their power of perception greatly, and at the same time cultivated an amazingly retentive memory of objects thus seen. It is all a matter of use and practice. The experiment of Houdin may be varied infinitely, with excellent results.

The Hindus train their children along these lines, by playing the "sight game" with them. This game is played by exposing to the sight of the children a number of small objects, at which they gaze intently, and which are then withdrawn from their sight. The children then endeavor to excel each other in writing down the names of the objects which they have seen. The number of objects is small to begin with, but is increased each day, until an astonishing number are perceived and remembered.

Rudyard Kipling in his great book, "Kim," gives an instance of this game, played by "Kim" and a trained native youth. Lurgan Sahib exposes to the sight of the two boys a tray filled with jewels and gems, allowing them to gaze upon it a few moments before it is withdrawn from sight. Then the competition begins, as follows: " 'There are under that paper five blue stones, one big, one smaller, and three small,' said Kim in all haste. There are four green stones, and one with a hole in it; there is one yellow stone that I can see through, and one like a pipe stem. There are two red stones, and—and—give me time.' " But Kim had reached the limit of his powers. Then came the turn of the native boy. " 'Hear my count,' cried the native child. 'First are two flawed sapphires, one of two ruttes and one of four, as I should judge. The four rutte sapphire is chipped at the edge. There is one Turkestan turquoise, plain with green veins, and there are two inscribed—one with the name of God in gilt, and the other being cracked across, for it came out of an old ring, I cannot read. We have now the five blue stones; four flamed

emeralds there are, but one is drilled in two places, and one is a little carven.' 'Their weight?' said Lurgan Sahib, impassively. 'Three—five—five and four ruttees, as I judge it. There is one piece of old greenish amber, and a cheap cut topaz from Europe. There is one ruby of Burma, one of two ruttees, without a flaw. And there is a ballas ruby, flawed, of two ruttees. There is a carved ivory from China, representing a rat sucking an egg; and there is last—Ah—ha!—a ball of crystal as big as a bean set in gold leaf.' " Kim is mortified at his bad beating, and asks the secret. The answer is: "By doing it many times over, till it is done perfectly, for it is worth doing."

Many teachers have followed plans similar to that just related. A number of small articles are exposed, and the pupils are trained to see and remember them, the process being gradually made more and more difficult. A well known American teacher was in the habit of rapidly making a number of dots on the blackboard, and then erasing them before the pupils could count them in the ordinary way. The children then endeavored to count

their mental impressions, and before long they could correctly name the number up to ten or more, with ease. They said they could "see six," or "see ten," as the case may be, automatically and apparently without the labor of consciously counting them. It is related in works dealing with the detection of crime, that in the celebrated "thieves schools" in Europe, the young thieves are trained in a similar way, the old scoundrels acting as teachers exposing a number of small articles to the young ones, and requiring them to repeat exactly what they had seen. Then follows a higher course in which the young thieves are required to memorize the objects in a room; the plan of houses, etc. They are sent forth to "spy out the land" for future robberies, in the guise of beggars soliciting alms, and thus getting a rapid peep into houses, offices, and stores. It is said that in a single glance they will perceive the location of all of the doors, windows, locks, bolts, etc.

Many nations have boys' games in which the youngsters are required to see and remember after taking a peep. The Italians have a game called "Morro" in which one boy

throws out a number of fingers, which must be instantly named by the other boy, a failure resulting in a forfeit. The Chinese youths have a similar game, while the Japanese boys reduce this to a science. A well trained Japanese youth will be able to remember the entire contents of a room after one keen glance around it. Many of the Orientals have developed this faculty to a degree almost beyond belief. But the principle is the same in all cases—the gradual practice and exercise, beginning with a small number of simple things, and then increasing the number and complexity of the objects.

The faculty is not so rare as one might imagine at first thought. Take a man in a small business, and let him enter the store of a competitor, and see how many things he will observe and remember after a few minutes in the place. Let an actor visit a play in another theatre, and see how many details of the performance he will notice and remember. Let some women pay a visit to a new neighbor, and then see how many things about that house they will have seen and remembered to be retailed to their confidential friends af-

terward. It is the old story of attention following the interest, and memory following the attention. An expert whist player will see and remember every card played in the game, and just who played it. A chess or checker player will see and remember the previous moves in the game, if he be expert, and can relate them afterward. A woman will go shopping and will see and remember thousands of things that a man would never have seen, much less remembered. As Houdin said: "Thus, for instance, I can safely assert that a lady seeing another pass at full speed in a carriage will have had time to analyze her toilette from her bonnet to her shoes, and be able to describe not only the fashion and quality of the stuffs, but also say if the lace be real or only machine made. I have known ladies to do this."

But, remember this—for it is important: Whatever can be done in this direction by means of attention, inspired by interest, may be duplicated by *attention directed by will.* In other words, the desire to accomplish the task adds and creates an artificial interest just as effective as the natural feeling. And,

as you progress, the interest in the game-task will add new interest, and you will be able to duplicate any of the feats mentioned above. It is all a matter of attention, interest (natural or induced) and practice. Begin with a set of dominoes, if you like, and try to remember the spots on one of them rapidly glanced at—then two—then three. By increasing the number gradually, you will attain a power of perception and a memory of sight-impressions that will appear almost marvelous. And not only will you begin to remember dominoes, but you will also be able to perceive and remember thousands of little details of interest, in everything, that have heretofore escaped your notice. The principle is very simple, but the results that may be obtained by practice are wonderful.

The trouble with most of you is that you have been looking without seeing—gazing but not observing. The objects around you have been out of your mental focus. If you will but change your mental focus, by means of will and attention, you will be able to cure yourself of the careless methods of seeing and observing that have been hindrances to

your success. You have been blaming it on your memory, but the fault is with your perception. How can the memory remember, when it is not given anything in the way of clear impressions? You have been like young infants in this matter—now it is time for you to begin to "sit up and take notice," no matter how old you may be. The whole thing in a nut-shell is this: In order to remember the things that pass before your sight, you must begin to *see with your mind,* instead of with your retina. Let the impression get beyond your retina and into your mind. If you will do this, you will find that memory will "do the rest."

CHAPTER X.

TRAINING THE EAR.

The sense of hearing is one of the highest of the senses or channels whereby we receive impressions from the outside world. In fact, it ranks almost as high as the sense of sight. In the senses of taste, touch, and smell there is a direct contact between the sensitive recipient nerve substance and the particles of the object sensed, while in the sense of sight and the sense of hearing the impression is received through the medium of waves in the ether (in the case of sight), or waves in the air (in the sense of hearing.) Moreover in taste, smell and touch the objects sensed are brought into direct contact with the terminal nerve apparatus, while in seeing and hearing the nerves terminate in peculiar and delicate sacs which contain a fluidic substance through which the impression is conveyed to the nerve proper. Loss of this fluidic substance destroys the faculty to receive impressions, and

deafness or blindness ensues. As Foster says: "Waves of sound falling upon the auditory nerve itself produces no effect whatever; it is only when, by the medium of the endolymph, they are brought to bear on the delicate and peculiar epithelium cells which constitute the peripheral terminations of the nerve, that sensations of sound arise."

Just as it is true that it is the mind and not the eye that really *sees;* so is it true that it is the mind and not the ear that really *hears.* Many sounds reach the ear that are not registered by the mind. We pass along a crowded street, the waves of many sounds reaching the nerves of the ear, and yet the mind *accepts* the sounds of but few things, particularly when the novelty of the sounds has passed away. It is a matter of interest and attention in this case, as well as in the case of hearing. As Halleck says: "If we sit by an open window in the country on a summer day, we may have many stimuli knocking at the gate of attention: the ticking of a clock, the sound of the wind, the cackling of fowl, the quacking of ducks, the barking of dogs, the lowing of cows, the cries of children at play, the rust-

ling of leaves, the songs of birds, the rumbling of wagons, etc. If attention is centered upon any one of these, that for the time being acquires the importance of a king upon the throne of our mental world."

Many persons complain of not being able to remember sounds, or things reaching the mind through the sense of hearing, and attribute the trouble to some defect in the organs of hearing. But in so doing they overlook the real cause of the trouble, for it is a scientific fact that many of such persons are found to have hearing apparatus perfectly developed and in the best working order—their trouble arising from a lack of training of the mental faculty of hearing. In other words the trouble is in their mind instead of in the organs of hearing. To acquire the faculty of correct hearing, and correct memory of things heard, the mental faculty of hearing must be exercised, trained and developed. Given a number of people whose hearing apparatus are equally perfect, we will find that some "hear" much better than others; and some hear certain things better than they do certain other things; and that there is a great

difference in the grades and degrees of memory of the things heard. As Kay says: "Great differences exist among individuals with regard to the acuteness of this sense (hearing) and some possess it in greater perfection in certain directions than in others. One whose hearing is good for sound in general may yet have but little ear for musical tones; and, on the other hand, one with a good ear for music may yet be deficient as regards hearing in general." The secret of this is to be found in the degree of interest and attention bestowed upon the particular thing giving forth the sound.

It is a fact that the mind will hear the faintest sounds from things in which is centered interest and attention, while at the same time ignoring things in which there is no interest and to which the attention is not turned. A sleeping mother will awaken at the slightest whimper from her babe, while the rumbling of a heavy wagon on the street, or even the discharge of a gun in the neighborhood may not be noticed by her. An engineer will detect the slightest difference in the whir or hum of his engine, while failing to notice a

very loud noise outside. A musician will note the slightest discord occurring in a concert in which there are a great number of instruments being played, and in which there is a great volume of sound reaching the ear, while other sounds may be unheard by him. The man who taps the wheels of your railroad car is able to detect the slightest difference in tone, and is thus informed that there is a crack or flaw in the wheel. One who handles large quantities of coin will have his attention drawn to the slightest difference in the "ring" of a piece of gold or silver, that informs him that there is something wrong with the coin. A train engineer will distinguish the strange whir of something wrong with the train behind him, amidst all the thundering rattle and roar in which it is merged. The foreman in a machine shop in the same manner detects the little strange noise that informs him that something is amiss, and he rings off the power at once. Telegraphers are able to detect the almost imperceptible differences in the sound of their instruments that inform them that a new operator is on the wire; or just who is sending

the message; and, in some cases, the mood or temper of the person transmitting it. Train-men and steamboat men recognize the differences between every engine or boat on their line, or river, as the case may be. A skilled physician will detect the faint sounds denoting a respiratory trouble or a "heart murmur" in the patients. And yet these very people who are able to detect the faint differences in sound, above mentioned, are often known as "poor hearers" in other things. Why? Simply because they hear only that in which they are interested, and to which their attention has been directed. That is the whole secret, and in it is also to be found the secret of training of the ear-perception. It is all a matter of interest and attention—the details depend upon these principles.

In view of the facts just stated, it will be seen that the remedy for "poor hearing," and poor memory of things heard is to be found in the use of the will in the direction of voluntary attention and interest. So true is this that some authorities go so far as to claim that many cases of supposed slight deafness are really but the result of lack of attention

and concentration on the part of the person so troubled. Kay says: "What is commonly called deafness is not infrequently to be attributed to this cause—the sounds being heard but not being interpreted or recognized. . . . sounds may be distinctly heard when the attention is directed toward them, that in ordinary circumstances would be imperceptible; and people often fail to hear what is said to them because they are not paying attention." Harvey says: "That one-half of the deafness that exists is the result of inattention cannot be doubted." There are but few persons who have not had the experience of listening to some bore, whose words were distinctly heard but the meaning of which was entirely lost because of inattention and lack of interest. Kirkes sums the matter up in these words: "In hearing we must distinguish two different points—the audible sensation as it is developed without any intellectual interference, and the conception which we form in consequence of that sensation."

The reason that many persons do not remember things that they have heard is simply because they have not *listened* properly. Poor

listening is far more common than one would suppose at first. A little self-examination will reveal to you the fact that you have fallen into the bad habit of inattention. One cannot listen to everything, of course—it would not be advisable. But one should acquire the habit of either really listening or else refusing to listen at all. The compromise of careless listening brings about deplorable results, and is really the reason why so many people "can't remember" what they have heard. It is all a matter of habit. Persons who have poor memories of ear-impressions should begin to "listen" in earnest. In order to reacquire their lost habit of proper listening, they must exercise voluntary attention and develop interest. The following suggestions may be useful in that direction.

Try to memorize words that are spoken to you in conversation—a few sentences, or even one, at a time. You will find that the effort made to fasten the sentence on your memory will result in a concentration of the attention on the words of the speaker. Do the same thing when you are listening to a preacher, actor or lecturer. Pick out the first sentence

for memorizing, and make up your mind that your memory will be as wax to receive the impression and as steel to retain it. Listen to the stray scraps of conversation that come to your ears while walking on the street, and endeavor to memorize a sentence or two, as if you were to repeat it later in the day. Study the various tones, expressions and inflections in the voices of persons speaking to you—you will find this most interesting and helpful. You will be surprised at the details that such analysis will reveal. Listen to the footsteps of different persons and endeavor to distinguish between them—each has its peculiarities. Get some one to read a line or two of poetry or prose to you, and then endeavor to remember it. A little practice of this kind will greatly develop the power of voluntary attention to sounds and spoken words. But above everything else, practice repeating the words and sounds that you have memorized, so far as is possible—for by so doing you will get the mind into the habit of taking an interest in sound impressions. In this way you not only improve the sense of hearing, but also the faculty of remembering.

If you will analyze, and boil down the above remarks and directions, you will find that the gist of the whole matter is that one should *actually use, employ and exercise* the mental faculty of hearing, actively and intelligently. Nature has a way of putting to sleep, or atrophying any faculty that is not used or exercised; and also of encouraging, developing and strengthening any faculty that is properly employed and exercised. In this you have the secret. Use it. If you will listen well, you will hear well and remember well that which you have heard.

CHAPTER XI.

HOW TO REMEMBER NAMES.

The phase of memory connected with the remembrance or recollection of names probably is of greater interest to the majority of persons than are any of the associated phases of the subject. On all hands are to be found people who are embarassed by their failure to recall the name of some one whom they feel they know, but whose name has escaped them. This failure to remember the names of persons undoubtedly interferes with the business and professional success of many persons; and, on the other hand, the ability to recall names readily has aided many persons in the struggle for success. It would seem that there are a greater number of persons deficient in this phase of memory than in any other. As Holbrook has said: "The memory of names is a subject with which most persons must have a more than passing interest. . . . The number of persons who never or rarely forget

a name is exceedingly small, the number of those who have a poor memory for them is very large. The reason for this is partly a defect of mental development and partly a matter of habit. In either case it may be overcome by effort. . . . I have satisfied myself by experience and observation that a memory for names may be increased not only two, *but a hundredfold.*"

You will find that the majority of successful men have been able to recall the faces and names of those with whom they came in contact, and it is an interesting subject for speculation as to just how much of their success was due to this faculty. Socrates is said to have easily remembered the names of all of his students, and his classes numbered thousands in the course of a year. Xenophon is said to have known the name of every one of his soldiers, which faculty was shared by Washington and Napoleon, also. Trajan is said to have known the names of all the Praetorian Guards, numbering about 12,000. Pericles knew the face and name of every one of the citizens of Athens. Cineas is said to have known the names of all the citizens of

Rome. Themistocles knew the names of 20,000 Athenians. Lucius Scipio could call by name every citizen of Rome. John Wesley could recall the names of thousands of persons whom he had met in his travels. Henry Clay was specially developed in this phase of memory, and there was a tradition among his followers that he remembered every one whom he met. Blaine had a similar reputation.

There have been many theories advanced, and explanations offered to account for the fact that the recollection of names is far more difficult than any other form of the activities of the memory. We shall not take up your time in going over these theories, but shall proceed upon the theory now generally accepted by the best authorities; i. e. that the difficulty in the recollection of names is caused by the fact that names in themselves are *uninteresting* and therefore do not attract or hold the attention as do other objects presented to the mind. There is of course to be remembered the fact that sound impressions are apt to be more difficult of recollection than sight impressions, but the lack of interesting

qualities in names is believed to be the principal obstacle and difficulty. Fuller says of this matter: "A proper noun, or name, when considered independently of accidental features of coincidence with something that is familiar, *doesn't mean anything;* for this reason a mental picture of it is not easily formed, which accounts for the fact that the primitive, tedious way of rote, or repetition, is that ordinarily employed to impress a proper noun on the memory, while a common noun, being represented by some object having shape, or appearance, in the physical or mental perception, can thus be *seen or imagined*: in other words *a mental image* of it can be formed and the *name* identified afterwards, through associating it with this mental image." We think that the case is fully stated in this quotation.

But in spite of this difficulty, persons have and can greatly improve their memory of names. Many who were originally very deficient in this respect have not only improved the faculty far beyond its former condition, but have also developed exceptional ability in this special phase of memory so that they

became noted for their unfailing recollection of the names of those with whom they came in contact.

Perhaps the best way to impress upon you the various methods that may be used for this purpose would be to relate to you the actual experience of a gentleman employed in a bank in one of the large cities of this country, who made a close study of the subject and developed himself far beyond the ordinary. Starting with a remarkably poor memory for names, he is now known to his associates as "the man who never forgets a name." This gentleman first took a number of "courses" in secret "methods" of developing the memory; but after thus spending much money he expressed his disgust with the whole idea of artificial memory training. He then started in to study the subject from the point-of-view of The New Psychology, putting into effect all of the tested principles, and improving upon some of their details. We have had a number of conversations with this gentleman, and have found that his experience confirms many of our own ideas and theories, and the fact that he has demonstrated the correctness

of the principles to such a remarkable degree renders his case one worthy of being stated in the direction of affording a guide and "method" for others who wish to develop their memory of names.

The gentleman, whom we shall call "Mr. X.," decided that the first thing for him to do was to develop his faculty of receiving clear and distinct sound impressions. In doing this he followed the plan outlined by us in our chapter on "Training the Ear." He persevered and practiced along these lines until his "hearing" became very acute. He made a study of voices, until he could classify them and analyze their characteristics. Then he found that he could *hear* names in a manner before impossible to him. That is, instead of merely catching a vague sound of a name, he would hear it so clearly and distinctly that a firm registration would be obtained on the records of his memory. For the first time in his life names began to *mean something* to him. He paid attention to every name he heard, just as he did to every note he handled. He would repeat a name to himself, after hearing it, and would thus strengthen the im-

pression. If he came across an unusual name, he would write it down several times, at the first opportunity, thus obtaining the benefit of a double sense impression, adding eye impression to ear impression. All this, of course, aroused his interest in the subject of names in general, which led him to the next step in his progress.

Mr. X. then began to study names, their origin, their peculiarities, their differences, points of resemblances, etc. He made a hobby of names, and evinced all the joy of a collector when he was able to stick the pin of attention through the specimen of a new and unfamiliar species of name. He began to collect names, just as others collect beetles, stamps, coins, etc., and took quite a pride in his collection and in his knowledge of the subject. He read books on names, from the libraries, giving their origin, etc. He had the Dickens' delight in "queer" names, and would amuse his friends by relating the funny names he had seen on signs, and otherwise. He took a small City Directory home with him, and would run over the pages in the evening, looking up new names, and classifying old

ones into groups. He found that some names were derived from animals, and put these into a class by themselves—the Lyons, Wolfs, Foxes, Lambs, Hares, etc. Others were put into the color group—Blacks, Greens, Whites, Greys, Blues, etc. Others belonged to the bird family—Crows, Hawks, Birds, Drakes, Cranes, Doves, Jays, etc. Others belonged to trades—Millers, Smiths, Coopers, Maltsters, Carpenters, Bakers, Painters, etc. Others were trees—Chestnuts, Oakleys, Walnuts, Cherrys, Pines, etc. Then there were Hills and Dales; Fields and Mountains; Lanes and Brooks. Some were Strong; others were Gay; others were Savage; others Noble. And so on. It would take a whole book to tell you what that man found out about names. He came near becoming a "crank" on the subject. But his hobby began to manifest excellent results, for his *interest* had been awakened to an unusual degree, and he was becoming very proficient in his recollection of names, for they now meant something to him. He easily recalled all the regular customers at his bank,—quite a number by the way for the bank was a large one—and many occasion-

al depositors were delighted to have themselves called by name by our friend. Occasionally he would meet with a name that balked him, in which case he would repeat it over to himself, and write it a number of times until he had mastered it—after that it never escaped him.

Mr. X. would always repeat a name when it was spoken, and would at the same time look intently at the person bearing it, thus seeming to fix the two together in his mind at the same time—when he wanted them they would be found in each other's company. He also acquired the habit of *visualizing* the name—that is, he would see its letters in his mind's eye, as a picture. This he regarded as a most important point, and we thoroughly agree with him. He used the Law of Association in the direction of associating a new man with a well-remembered man of the same name. A new Mr. Schmidtzenberger would be associated with an old customer of the same name—when he would see the new man, he would think of the old one, and the name would flash into his mind. To sum up the whole method, however, it may be said that

the gist of the thing was in *taking an interest* in names in general. In this way an uninteresting subject was made interesting—and a man always has a good memory for the things in which he is interested.

The case of Mr. X. is an extreme one—and the results obtained were beyond the ordinary. But if you will take a leaf from his book, you may obtain the same results in the degree that you work for it. Make a study of names—start a collection—and you will have no trouble in developing a memory for them. This is the whole thing in a nut-shell.

CHAPTER XII.

HOW TO REMEMBER FACES.

The memory of faces is closely connected with the memory of names, and yet the two are not always associated, for there are many people who easily remember faces, and yet forget names, and vice versa. In some ways, however, the memory of faces is a necessary precedent for the recollection of the names of people. For unless we recall the face, we are unable to make the necessary association with the name of the person. We have given a number of instances of face-memory, in our chapter on name-memory, in which are given instances of the wonderful memory of celebrated individuals who acquired a knowledge and memory of the thousands of citizens of a town, or city, or the soldiers of an army. In this chapter, however, we shall pay attention only to the subject of the recollection of the features of persons, irrespective of their names. This faculty is possessed by all per-

sons, but in varying degrees. Those in whom it is well developed seem to recognize the faces of persons whom they have met years before, and to associate them with the circumstances in which they last met them, even where the name escapes the memory. Others seem to forget a face the moment it passes from view, and fail to recognize the same persons whom they met only a few hours before, much to their mortification and chagrin.

Detectives, newspaper reporters, and others who come in contact with many people, usually have this faculty largely developed, for it becomes a necessity of their work, and their interest and attention is rendered active thereby. Public men often have this faculty largely developed by reason of the necessities of their life. It is said that James G. Blaine never forgot the face of anyone whom he had met and conversed with a few moments. This faculty rendered him very popular in political life. In this respect he resembled Henry Clay, who was noted for his memory of faces. It is related of Clay that he once paid a visit of a few hours to a small town in Mississippi, on an electioneering tour. Amidst the throng

surrounding him was an old man, with one eye missing. The old fellow pressed forward crying out that he was sure that Henry Clay would remember him. Clay took a sharp look at him and said: "I met you in Kentucky many years ago, did I not?" "Yes," replied the man. "Did you lose your eye since then?" asked Clay. "Yes, several years after," replied the old man. "Turn your face side-ways, so that I can see your profile," said Clay. The man did so. Then Clay smiled, triumphantly, saying: "I've got you now—weren't you on that jury in the Innes case at Frankfort, that I tried in the United States Court over twenty years ago?" "Yes siree!" said the man, "I knowed that ye know me, 'n I told 'em you would." And the crowd gave a whoop, and Clay knew that he was safe in that town and county.

Vidocq, the celebrated French detective, is said to have never forgotten a face of a criminal whom he had once seen. A celebrated instance of this power on his part is that of the case of Delafranche the forger who escaped from prison and dwelt in foreign lands for over twenty years. After that time he re-

turned to Paris feeling secure from detection, having become bald, losing an eye, and having his nose badly mutilated. Moreover he disguised himself and wore a beard, in order to still further evade detection. One day Vidocq met him on the street, and recognized him at once, his arrest and return to prison following. Instances of this kind could be multiplied indefinitely, but the student will have had a sufficient acquaintance with persons who possess this faculty developed to a large degree, so that further illustration is scarcely necessary.

The way to develop this phase of memory is akin to that urged in the development of other phases—the cultivation of interest, and the bestowal of attention. Faces as a whole are not apt to prove interesting. It is only by analyzing and classifying them that the study begins to grow of interest to us. The study of a good elementary work on physiognomy is recommended to those wishing to develop the faculty of remembering faces, for in such a work the student is led to notice the different kinds of noses, ears, eyes, chins, foreheads, etc., such notice and recognition tend-

ing to induce an interest in the subject of features. A rudimentary course of study in drawing faces, particularly in profile, will also tend to make one "take notice" and will awaken interest. If you are required to draw a nose, particularly from memory, you will be apt to give to it your interested attention. The matter of interest is vital. If you were shown a man and told that the next time you met and recognized him he would hand you over $500, you would be very apt to study his face carefully, and to recognize him later on; whereas the same man if introduced casually as a "Mr. Jones," would arouse no interest and the chances of recognition would be slim.

Halleck says: Every time we enter a street car we see different types of people, and there is a great deal to be noticed about each type. Every human countenance shows its past history to one who knows how to look. . . . Successful gamblers often become so expert in noticing the slightest change of an opponent's facial expression that they will estimate the strength of his hand by the involuntary signs which appear in the face and

which are frequently checked the instant they appear."

Of all classes, perhaps artists are more apt to form a clear cut image of the features of persons whom they meet—particularly if they are portrait painters. There are instances of celebrated portrait painters who were able to execute a good portrait after having once carefully studied the face of the sitter, their memory enabling them to visualize the features at will. Some celebrated teachers of drawing have instructed their scholars to take a sharp hasty glance at a nose, an eye, an ear, or chin, and then to so clearly visualize it that they could draw it perfectly. It is all a matter of interest, attention, *and practice.* Sir Francis Galton cites the instance of a French teacher who trained his pupils so thoroughly in this direction that after a few months' practice they had no difficulty in summoning images at will; in holding them steady; and in drawing them correctly. He says of the faculty of visualization thus used: "A faculty that is of importance in all technical and artistic occupations, that gives accuracy to our perceptions, and justice to our generaliza-

tions, is starved by lazy disuse, instead of being cultivated judiciously in such a way as will, on the whole, bring the best return. I believe that a serious study of the best means of developing and utilizing this faculty, without prejudice to the practice of abstract thought in symbols, is one of the many pressing desiderata in the yet unformed science of education.''

Fuller relates the method of a celebrated painter, which method has been since taught by many teachers of both drawing and memory. He relates it as follows: ''The celebrated painter Leonardo da Vinci invented a most ingenious method for identifying faces, and by it is said to have been able to reproduce from memory any face that he had once carefully scrutinized. He drew all the possible forms of the nose, mouth, chin, eyes, ears and forehead, numbered them 1, 2, 3, 4, etc., and committed them thoroughly to memory; then, whenever he saw a face that he wished to draw or paint from memory, he noted in his mind that it was chin 4, eyes 2, nose 5, ears 6,—or whatever the combinations might be—and by retaining the analysis in

his memory he could reconstruct the face at any time.'' We could scarcely ask the student to attempt so complicated a system, and yet a modification of it would prove useful. That is, if you would begin to form a classification of several kind of noses, say about seven, the well-known Roman, Jewish, Grecian, giving you the general classes, in connection with straight, crooked, pug and all the other varieties, you would soon recognize noses when you saw them. And the same with mouths, a few classes being found to cover the majority of cases. But of all the features, the eye is the most expressive, and the one most easily remembered, when clearly noticed. Detectives rely much upon *the expression of the eye.* If you ever fully catch the *expression* of a person's eye, you will be very apt to recognize it thereafter. Therefore concentrate on eyes in studying faces.

A good plan in developing this faculty is to visualize the faces of persons you have met during the day, in the evening. Try to develop the faculty of visualizing the features of those whom you know—this will start you off right. Draw them in your mind—see

them with your mind's eye, until you can visualize the features of very old friends; then do the same with acquaintances, and so on, until you are able to visualize the features of every one you "know." Then start on to add to your list by recalling in the imagination, the features of strangers whom you meet. By a little practice of this kind you will develop a great interest in faces and your memory of them, and the power to recall them will increase rapidly. The secret is to study faces —to be interested in them. In this way you add zest to the task, and make a pleasure of a drudgery. The study of photographs is also a great aid in this work—but study them in detail, not as a whole. If you can arouse sufficient interest in features and faces, you will have no trouble in remembering and recalling them. The two things go together.

CHAPTER XIII.

HOW TO REMEMBER PLACES.

There is a great difference in the various degrees of development of "the sense of locality" in different persons. But these differences may be traced directly to the degree of memory of that particular phase or faculty of the mind, which in turn depends upon the degree of attention, interest, and use which has been bestowed upon the faculty in question. The authorities on phrenology define the faculty of "locality as follows: "Cognizance of place; recollection of the looks of places, roads, scenery, and the location of objects; where on a page ideas are to be found, and position generally; the geographical faculty; the desire to see places, and have the ability to find them." Persons in whom this faculty is developed to the highest degree seem to have an almost intuitive idea of direction, place and position. They never get lost or "mixed up" regarding direction or

place. They remember the places they visit and their relation in space to each other. Their minds are like maps upon which are engraved the various roads, streets and objects of sight in every direction. When these people think of China, Labrador, Terra del Fuego, Norway, Cape of Good Hope, Thibet, or any other place, they seem to think of it in "*this* direction or *that* direction" rather than as a vague place situated in a vague direction. Their minds think "north, south, east or west" as the case may be when they consider a given place. Shading down by degrees we find people at the other pole of the faculty who seem to find it impossible to remember any direction, or locality or relation in space. Such people are constantly losing themselves in their own towns, and fear to trust themselves in a strange place. They have no sense of direction, or place, and fail to recognize a street or scene which they have visited recently, not to speak of those which they traveled over in time past. Between these two poles or degrees there is a vast difference, and it is difficult to realize that it is all a matter of use, interest and attention. That it is

but this may be proven by anyone who will take the trouble and pains to develop the faculty and memory of locality within his mind. Many have done this, and anyone else may do likewise if the proper methods be employed.

The secret of the development of the faculty and memory of place and locality is akin to that mentioned in the preceding chapter, in connection with the development of the memory for names. The first thing necessary is to develop an *interest* in the subject. One should begin to "take notice" of the direction of the streets or roads over which he travels; the landmarks; the turns of the road; the natural objects along the way. He should study maps, until he awakens a new interest in them, just as did the man who used the directory in order to take an interest in names. He should procure a small geography and study direction, distances, location, shape and form of countries, etc., not as a mere mechanical thing but as a live subject of interest. If there were a large sum of money awaiting your coming in certain sections of the globe, you would manifest a decided interest in the

direction, locality and position of those places, and the best way to reach them. Before long you would be a veritable reference book regarding those special places. Or, if your sweetheart were waiting for you in some such place, you would do likewise. The whole thing lies in the degree of "want to" regarding the matter. Desire awakens interest; interest employs attention; and attention brings use, development and memory. Therefore you must first *want to* develop the faculty of Locality—and want to "hard enough." The rest is a mere matter of detail.

One of the first things to do, after arousing an interest, is to carefully note the landmarks and relative positions of the streets or roads over which you travel. So many people travel along a new street or road in an absent-minded manner, taking no notice of the lay of the land as they proceed. This is fatal to place-memory. You must take notice of the thoroughfares and the things along the way. Pause at the cross roads, or the street-corners and note the landmarks, and the general directions and relative positions, until they are firmly imprinted on your mind. Begin to

see how many things you can remember regarding even a little exercise walk. And when you have returned home, go over the trip in your mind, and see how much of the direction and how many of the landmarks you are able to remember. Take out your pencil, and endeavor to *make a map* of your route, giving the general directions, and noting the street names, and principal objects of interest. Fix the idea of "North" in your mind when starting, and keep your bearings by it during your whole trip, and in your map making. You will be surprised how much interest you will soon develop in this map-making. It will get to be quite a game, and you will experience pleasure in your increasing proficiency in it. When you go out for a walk, go in a round-about way, taking as many turns and twists as possible, in order to exercise your faculty of locality and direction—but always note carefully direction and general course, so that you may reproduce it correctly on your map when you return. If you have a city map, compare it with your own little map, and also re-trace your route, in imagination, on the map. With a city map,

or road-map, you may get lots of amusement by re-traveling the route of your little journeys.

Always note the names of the various streets over which you travel, as well as those which you cross during your walk. Note them down upon your map, and you will find that you will develop a rapidly improving memory in this direction—because you have awakened interest and bestowed attention. Take a pride in your map making. If you have a companion, endeavor to beat each other at this game—both traveling over the same route together, and then seeing which one can remember the greatest number of details of the journey.

Akin to this, and supplementary to it, is the plan of selecting a route to be traveled, on your city map, endeavoring to fix in your mind the general directions, names of streets, turns, return journey, etc., before you start. Begin by mapping out a short trip in this way, and then increase it every day. After mapping out a trip, lay aside your map and travel it in person. If you like, take along the map and puzzle out

variations, from time to time. Get the map habit in every possible variation and form, but do not depend upon the map exclusively; but instead, endeavor to correlate the printed map with the mental map that you are building in your brain.

If you are about to take a journey to a strange place, study your maps carefully before you go, and exercise your memory in reproducing them with a pencil. Then as you travel along, compare places with your map, and you will find that you will take an entirely new interest in the trip—it will begin by meaning something to you. If about to visit a strange city, procure a map of it before starting, and begin by noting the cardinal points of the compass, study the map—the directions of the principal streets and the relative positions of the principal points of interest, buildings, etc. In this way you not only develop your memory of places, and render yourself proof against being lost, but you also provide a source of new and great interest in your visit.

The above suggestions are capable of the greatest expansion and variation on the part

of anyone who practices them. The whole thing depends upon the "taking notice" and using the attention, and those things in turn depend upon the taking of interest in the subject. If anyone will "wake up and take interest" in the subject of locality and direction he may develop himself along the lines of place-memory to an almost incredible degree, in a comparatively short time at that. There is no other phase of memory that so quickly responds to use and exercise as this one. We have in mind a lady who was notoriously deficient in the memory of place, and was sure to lose herself a few blocks from her stopping place, wherever she might be. She seemed absolutely devoid of the sense of direction or locality and often lost herself in the hotel corridors, notwithstanding the fact that she traveled all over the world, with her husband, for years. The trouble undoubtedly arose from the fact that she depended altogether upon her husband as a pilot, the couple being inseparable. Well, the husband died, and the lady lost her pilot. Instead of giving up in despair, she began to rise to the occasion—having no pilot, she had to pilot herself. And

she was forced to "wake up and take notice." She was compelled to travel for a couple of years, in order to close up certain business matters of her husband's—for she was a good business woman in spite of her lack of development along this one line—and in order to get around safely, she was forced to take an interest in where she was going. Before the two years' travels were over, she was as good a traveler as her husband had ever been, and was frequently called upon as a guide by others in whose company she chanced to be. She explained it by saying "Why, I don't know just how I did it—I just *had to,* that's all—I just *did* it." Another example of a woman's "because," you see. What this good lady "just did," was accomplished by an instinctive following of the plan which we have suggested to you. She "just *had* to" use maps and to "take notice." That is the whole story.

So true are the principles underlying this method of developing the place-memory, that one deficient in it, providing he will arouse intense interest and will stick to it, may develop the faculty to such an extent that he

may almost rival the cat which "always came back," or the dog which "you couldn't lose." The Indians, Arabs, Gypsies and other people of the plain, forest, desert, and mountains, have this faculty so highly developed that it seems almost like an extra sense. It is all this matter of "taking notice" sharpened by continuous need, use and exercise, to a high degree. The mind will respond to the need if the person like the lady, "just *has to.*" The laws of Attention and Association will work wonders when actively called into play by Interest or need, followed by exercise and use. There is no magic in the process—just "want to" and "keep at it," that's all. Do you want to hard enough—have you the determination to keep at it?

CHAPTER XIV.

HOW TO REMEMBER NUMBERS.

The faculty of Number—that is the faculty of knowing, recognizing and remembering figures in the abstract and in their relation to each other, differs very materially among different individuals. To some, figures and numbers are apprehended and remembered with ease, while to others they possess no interest, attraction or affinity, and consequently are not apt to be remembered. It is generally admitted by the best authorities that the memorizing of dates, figures, numbers, etc., is the most difficult of any of the phases of memory. But all agree that the faculty may be developed by practice and interest. There have been instances of persons having this faculty of the mind developed to a degree almost incredible; and other instances of persons having started with an aversion to figures and then developing an interest which

resulted in their acquiring a remarkable degree of proficiency along these lines.

Many of the celebrated mathematicians and astronomers developed wonderful memories for figures. Herschel is said to have been able to remember all the details of intricate calculations in his astronomical computations, even to the figures of the fractions. It is said that he was able to perform the most intricate calculations mentally, without the use of pen or pencil, and then dictated to his assistant the entire details of the process, including the final results. Tycho Brahe, the astronomer, also possessed a similar memory. It is said that he rebelled at being compelled to refer to the printed tables of square roots and cube roots, and set to work to memorize the entire set of tables, which almost incredible task he accomplished in a half day—this required the memorizing of over 75,000 figures, and their relations to each other. Euler the mathematician became blind in his old age, and being unable to refer to his tables, memorized them. It is said that he was able to repeat from recollection the first six powers of all the numbers from one to one hundred.

Wallis the mathematician was a prodigy in this respect. He is reported to have been able to mentally extract the square root of a number to forty decimal places, and on one occasion mentally extracted the cube root of a number consisting of thirty figures. Dase is said to have mentally multiplied two numbers of one hundred figures each. A youth named Mangiamele was able to perform the most remarkable feats in mental arithmetic. The reports show that upon a celebrated test before members of the French Academy of Sciences he was able to extract the cube root of 3,796,416 in thirty seconds; and the tenth root of 282,475,289 in three minutes. He also immediately solved the following question put to him by Arago: "What number has the following proportion: That if five times the number be subtracted from the cube plus five times the square of the number, and nine times the square of the number be subtracted from that result, the remainder will be 0?" The answer, "5" was given immediately, without putting down a figure on paper or board. It is related that a cashier of a Chicago bank was able to mentally restore the

accounts of the bank, which had been destroyed in the great fire in that city, and his account which was accepted by the bank and the depositors, was found to agree perfectly with the other memoranda in the case, the work performed by him being solely the work of his memory.

Bidder was able to tell instantly the number of farthings in the sum of £868,42s,121d. Buxton mentally calculated the number of cubical eighths of an inch there were in a quadrangular mass 23,145,789 yards long, 2,-642,732 yards wide and 54,965 yards in thickness. He also figurèd out mentally, the dimensions of an irregular estate of about a thousand acres, giving the contents in acres and perches, then reducing them to square inches, and then reducing them to square hair-breadths, estimating 2,304 to the square inch, 48 to each side. The mathematical prodigy, Zerah Colburn, was perhaps the most remarkable of any of these remarkable people. When a mere child, he began to develop the most amazing qualities of mind regarding figures. He was able to instantly make the mental calculation of the exact number of seconds

or minutes there was in a given time. On one occasion he calculated the number of minutes and seconds contained in forty-eight years, the answer: "25,228,800 minutes, and 1,513,-728,000 seconds," being given almost instantaneously. He could instantly multiply any number of one to three figures, by another number consisting of the same number of figures; the factors of any number consisting of six or seven figures; the square, and cube roots, and the prime numbers of any numbers given him. He mentally raised the number 8, progressively, to its sixteenth power, the result being 281,474,976,710,656; and gave the square root of 106,929, which was 5. He mentally extracted the cube root of 268,336,-125; and the squares of 244,999,755 and 1,224,-998,755. In five seconds he calculated the cube root of 413,993,348,677. He found the factors of 4,294,967,297, which had previously been considered to be a prime number. He mentally calculated the square of 999,999, which is 999,998,000,001 and then multiplied that number by 49, and the product by the same number, and the whole by 25—the latter as extra measure.

The great difficulty in remembering numbers, to the majority of persons, is the fact that numbers "do not mean anything to them"—that is, that numbers are thought of only in their abstract phase and nature, and are consequently far more difficult to remember than are impressions received from the senses of sight or sound. The remedy, however, becomes apparent when we recognize the source of the difficulty. The remedy is: *Make the number the subject of sound and sight impressions.* Attach the abstract idea of the numbers to the sense of impressions of sight or sound, or both, according to which are the best developed in your particular case. It may be difficult for you to remember "1848" as an abstract thing, but comparatively easy for you to remember the *sound* of "eighteen forty-eight," or the *shape and appearance* of "1848." If you will repeat a number to yourself, so that you grasp the sound impression of it, or else visualize it so that you can remember having *seen* it—then you will be far more apt to remember it than if you merely think of it without reference to sound or form. You may forget that the

number of a certain store or house is 3948, but you may easily remember the sound of the spoken words "thirty-nine forty-eight," or the form of "3948" as it appeared to your sight on the door of the place. In the latter case, you associate the number with the door and when you visualize the door you visualize the number.

Kay, speaking of visualization, or the reproduction of mental images of things to be remembered, says: "Those who have been distinguished for their power to carry out long and intricate processes of mental calculation owe it to the same cause." Taine says: "Children accustomed to calculate in their heads write mentally with chalk on an imaginary board the figures in question, then all their partial operations, then the final sum, so that they see internally the different lines of white figures with which they are concerned. Young Colburn, who had never been at school and did not know how to read or write, said that, when making his calculations 'he saw them clearly before him.' Another said that he 'saw the numbers he was working with as if they had been written on a slate.' " Bidder

said: "If I perform a sum mentally, it always proceeds in a visible form in my mind; indeed, I can conceive of no other way possible of doing mental arithmetic."

We have known office boys who could never remember the number of an address until it were distinctly repeated to them several times—then they memorized the *sound* and never forget it. Others forget the sounds, or failed to register them in the mind, but after once seeing the number on the door of an office or store, could repeat it at a moments notice, saying that they mentally "could see the figures on the door." You will find by a little questioning that the majority of people remember figures or numbers in this way, and that very few can remember them as abstract things. For that matter it is difficult for the majority of persons to even think of a number, abstractly. Try it yourself, and ascertain whether you do not remember the number as either a *sound of words,* or else as the mental image or visualization of the *form of the figures.* And, by the way, which ever it happens to be, sight or sound, that particular kind of remembrance is *your* best way of

remembering numbers, and consequently gives you the lines upon which you should proceed to develop this phase of memory.

The law of Association may be used advantageously in memorizing numbers; for instance we know of a person who remembered the number 186,000 (the number of miles per second traveled by light-waves in the ether) by associating it with the number of his father's former place of business, "186." Another remembered his telephone number "1876" by recalling the date of the Declaration of Independence. Another, the number of States in the Union, by associating it with the last two figures of the number of his place of business. But by far the better way to

memorize dates, special numbers connected with events, etc., it to visualize the picture of the event with the picture of the date or number, thus combining the two things into a mental picture, the association of which will be preserved when the picture is recalled. Verse of doggerel, such as "In fourteen hundred and ninety-two, Columbus sailed the ocean blue;" or "In eighteen hundred and sixty-one, our country's Civil war begun,"

etc., have their places and uses. But it is far better to cultivate the "sight or sound" of a number, than to depend upon cumbersome associative methods based on artificial links and pegs.

Finally, as we have said in the preceding chapters, before one can develop a good memory of a subject, he must first cultivate an interest in that subject. Therefore, if you will keep your interest in figures alive by working out a few problems in mathematics, once in a while, you will find that figures will begin to have a new interest for you. A little elementary arithmetic, used with interest, will do more to start you on the road to "How to Remember Numbers" than a dozen text books on the subject. In memory, the three rules are: "Interest, Attention and Exercise"—and the last is the most important, for without it the others fail. You will be surprised to see how many interesting things there are in figures, as you proceed. The task of going over the elementary arithmetic will not be nearly so "dry" as when you were a child. You will uncover all sorts of "queer" things in relation to numbers. Just as a "sample" let us call your attention to a few:

Take the figure "1" and place behind it a number of "naughts," thus: 1,000,000,000,-000,—as many "naughts" or ciphers as you wish. Then divide the number by the figure "7." You will find that the result is always this "142,857" then another "142,857," and so on to infinity, if you wish to carry the calculation that far. These six figures will be repeated over and over again. Then multiply this "142,857" by the figure "7," and your product will be *all nines.* Then take any number, and set it down, placing beneath it a reversal of itself and subtract the latter from the former, thus:

117,761,909
90,916,771
——————
26,845,138

and you will find that the result will always reduce to nine, and is always a multiple of 9. Take any number composed of two or more figures, and subtract from it the added sum of its separate figures, and the result is always a multiple of 9, thus:

$$\begin{array}{r} 184 \\ 1+8+4= \ 13 \\ \hline 171 \div 9 = 19 \end{array}$$

We mention these familiar examples merely to remind you that there is much more of interest in mere figures than many would suppose. If you can arouse your interest in them, then you will be well started on the road to the memorizing of numbers. Let figures and numbers "mean something" to you, and the rest will be merely a matter of detail.

CHAPTER XV.

HOW TO REMEMBER MUSIC.

Like all of the other faculties of the mind, that of music or tune is manifested in varying degrees by different individuals. To some music seems to be almost instinctively grasped, while to others it is acquired only by great effort and much labor. To some harmony is natural, and inharmony a matter of repulsion, while others fail to recognize the difference between the two except in extreme cases. Some seem to be the very soul of music, while others have no conception of what the soul of music may be. Then there is manifested the different phases of the knowledge of music. Some play correctly by ear, but are clumsy and inefficient when it comes to playing by note. Others play very correctly in a mechanical manner, but fail to retain the memory of music which they have heard. It is indeed a good musician who combines within himself, or herself, both of

the two last mentioned faculties—the ear perception of music and the ability to execute correctly from notes.

There are many cases of record in which extraordinary powers of memory of music have been manifested. Fuller relates the following instances of this particular phase of memory: Carolan, the greatest of Irish bards, once met a noted musician and challenged him to a test of their respective musical abilities. The *defi* was accepted and Carolan's rival played on his violin one of Vivaldi's most difficult concertos. On the conclusion of the performance, Carolan, who had never heard the piece before, took his harp and played the concerto through from beginning to end without making a single error. His rival thereupon yielded the palm, thoroughly satisfied of Carolan's superiority, as well he might be. Beethoven could retain in his memory any musical composition, however complex, that he had listened to, and could reproduce most of it. He could play from memory every one of the compositions in Bach's 'Well Tempered Clavichord,' there being forty-eight preludes and the same number of fugues

which in intricacy of movement and difficulty of execution are almost unexampled, as each of these compositions is written in the most abstruse style of counterpoint.

"Mozart, at four years of age, could remember note for note, elaborate solos in concertos which he had heard; he could learn a minuet in half an hour, and even composed short pieces at that early age. At six he was able to compose without the aid of an instrument, and continued to advance rapidly in musical memory and knowledge. When fourteen years old he went to Rome in Holy Week. At the Sistine Chapel was performed each day, Allegri's 'Miserere,' the score of which Mozart wished to obtain, but he learned that no copies were allowed to be made. He listened attentively to the performance, at the conclusion of which he wrote the whole score from memory without an error. Another time, Mozart was engaged to contribute an original composition to be performed by a noted violinist and himself at Vienna before the Emperor Joseph. On arriving at the appointed place Mozart discovered that he had forgotten to bring his part. Nothing

dismayed, he placed a blank sheet of paper before him, and played his part through from memory without a mistake. When the opera of 'Don Giovanni' was first performed there was no time to copy the score for the harpsichord, but Mozart was equal to the occasion; he conducted the entire opera and played the harpischord accompaniment to the songs and choruses without a note before him. There are many well-attested instances of Mendelssohn's remarkable musical memory. He once gave a grand concert in London, at which his Overture to 'Midsummer Night's Dream' was produced. There was only one copy of the full score, which was taken charge of by the organist of St. Paul's Cathedral, who unfortunately left it in a hackney coach—whereupon Mendelssohn wrote out another score from memory, without an error. At another time, when about to direct a public performance of Bach's 'Passion Music,' he found on mounting the conductor's platform that instead of the score of the work to be performed, that of another composition had been brought by mistake. Without hesitation Mendelssohn successfully conducted this com-

plicated work from memory, automatically turning over leaf after leaf of the score before him as the performance progressed, so that no feeling of uneasiness might enter the minds of the orchestra and singers. Gottschalk, it is said, could play from memory several thousand compositions, including many of the works of Bach. The noted conductor, Vianesi, rarely has the score before him in conducting an opera, knowing every note of many operas from memory."

It will be seen that two phases of memory must enter into the "memory of music"—the memory of tune and the memory of the notes. The memory of tune of course falls into the class of ear-impressions, and what has been said regarding them is also applicable to this case. The memory of notes falls into the classification of eye-impressions, and the rules of this class of memory applies in this case. As to the cultivation of the memory of tune, the principle advice to be given is that the student take an active interest in all that pertains to the sound of music, and also takes every opportunity for listening to good music, and endeavoring to reproduce it

in the imagination or memory. Endeavor to enter into the spirit of the music until it becomes a part of yourself. Rest not content with merely hearing it, but lend yourself to a *feeling* of its meaning. The more the music "means to you," the more easily will you remember it. The plan followed by many students, particularly those of vocal music, is to have a few bars of a piece played over to them several times, until they are able to hum it correctly; then a few more are added; and then a few more and so on. Each addition must be reviewed in connection with that which was learned before, so that the chain of association may be kept unbroken. The principle is the same as the child learning his A-B-C—he remembers "B" because it follows "A." By this constant addition of "just a little bit more," accompanied by frequent reviews, long and difficult pieces may be memorized.

The memory of notes may be developed by the method above named—the method of learning a few bars well, and then adding a few more, and frequently reviewing as far as you have learned, forging the links of as-

sociation as you go along, by frequent practice. The method being entirely that of eye-impression and subject to its rules, you must observe the idea of visualization—that is learning each bar until you can *see* it "in your mind's eye" as you proceed. But in this, as in many other eye-impressions, you will find that you will be greatly aided by your memory of the *sound* of the notes, in addition to their appearance. Try to associate the two as much as possible, so that when you *see* a note, you will *hear* the sound of it, and when you *hear* a note sounded, you will *see* it as it appears on the score. This combining of the impressions of both sight and sound will give you the benefit of the double sense impression, which results in doubling your memory efficiency. In addition to visualizing the notes themselves, the student should add the appearance of the various symbols denoting the key, the time, the movement, expression, etc., so that he may hum the air from the visualized notes, with expression and with correct interpretation. Changes of key, time or movement should be carefully noted in the memoriza-

tion of the notes. And above everything else, memorize the *feeling* of that particular portion of the score, that you may not only see and hear, but also *feel* that which you are recalling.

We would advise the student to practice memorizing simple songs at first, for various reasons. One of these reasons is that these songs lend themselves readily to memorizing, and the chain of easy association is usually maintained throughout.

In this phase of memory, as in all others, we add the advice to: Take interest; bestow Attention; and Practice and Exercise as often as possible. You may have tired of these words—but they constitute the main principles of the development of a retentive memory. Things must be impressed upon the memory, before they may be recalled. This should be remembered in every consideration of the subject.

CHAPTER XVI.

HOW TO REMEMBER OCCURRENCES.

The phase of memory which manifests in the recording of and recollection of the occurrences and details of one's every-day life is far more important than would appear at first thought. The average person is under the impression that he remembers very well the occurrences of his every-day business, professional or social life, and is apt to be surprised to have it suggested to him that he really remembers but very little of what happens to him during his waking hours. In order to prove how very little of this kind is really remembered, let each student lay down this book, at this place, and then quieting his mind let him endeavor to recall the incidents of the same day of the preceding week. He will be surprised to see how very little of what happened on that day he is really capable of recollecting. Then let him try the same experiment with the occurrences of yes-

terday—this result will also excite surprise. It is true that if he is reminded of some particular occurrence, he will recall it, more or less distinctly, but beyond that he will remember nothing. Let him imagine himself called upon to testify in court, regarding the happenings of the previous day, or the day of the week before, and he will realize his position.

The reason for his failure to easily remember the events referred to is to be found in the fact that he made no effort at the time to impress these happenings upon his subconscious mentality. He allowed them to pass from his attention like the proverbial "water from the duck's back." He did not wish to be bothered with the recollection of trifles, and in endeavoring to escape from them, he made the mistake of failing to store them away. There is a vast difference between dwelling on the past, and storing away past records for possible future reference. To allow the records of each day to be destroyed is like tearing up the important business papers in an office in order to avoid giving them a little space in the files.

It is not advisable to expend much mental effort in fastening each important detail of the day upon the mind, as it occurs; but there is an easier way that will accomplish the purpose, if one will but take a little trouble in that direction. We refer to the practice of *reviewing* the occurrences of each day, after the active work of the day is over. If you will give to the occurrences of each day a mental review in the evening, you will find that the act of reviewing will employ the attention to such an extent as to register the happenings in such a manner that they will be available if ever needed thereafter. It is akin to the filing of the business papers of the day, for possible future reference. Besides this advantage, these reviews will serve you well as a reminder of many little things of immediate importance which have escaped your recollection by reason of something that followed them in the field of attention.

You will find that a little practice will enable you to review the events of the day, in a very short space of time, with a surprising degree of accuracy of detail. It seems that the mind will readily respond to this demand

upon it. The process appears to be akin to a mental digestion, or rather a mental rumination, similar to that of the cow when it "chews the cud" that it has previously gathered. The thing is largely a "knack" easily acquired by a little practice. It will pay you for the little trouble and time that you expend upon it. As we have said, not only do you gain the advantage of storing away these records of the day for future use, but you also have your attention called to many important details that have escaped you, and you will find that many ideas of importance will come to you in your moments of leisure "rumination." Let this work be done in the evening, when you feel at ease—but do not do it after you retire. The bed is made for sleep, not for thinking. You will find that the subconsciousness will awaken to the fact that it will be called upon later for the records of the day, and will, accordingly, "take notice" of what happens, in a far more diligent and faithful manner. The subconsciousness responds to a call made upon it in an astonishing manner, when it once understands just what is required of it. You will see that

much of the virtue of the plan recommended consists in the fact that in the review there is an employment of the attention in a manner impossible during the haste and rush of the day's work. The faint impressions are brought out for examination, and the attention of the examination and review greatly deepen the impression in each case, so that it may be reproduced thereafter. In a sentence: it is *the deepening of the faint impressions of the day.*

Thurlow Weed, a well-known politician of the last century, testifies to the efficacy of the above mentioned method, in his "Memoirs." His plan was slightly different from that mentioned by us, but you will at once see that it involves the same principles—the same psychology. Mr. Weed says: "Some of my friends used to think that I was 'cut out' for a politician, but I saw at once a fatal weakness. My memory was a sieve. I could remember nothing. Dates, names, appointments, faces—everything escaped me. I said to my wife, 'Catherine, I shall never make a successful politician, for I cannot remember, and that is a prime necessity of politicians.

A politician who sees a man once should remember him forever.' My wife told me that I must train my memory. So when I came home that night I sat down alone and spent fifteen minutes trying silently to recall with accuracy the principal events of the day. I could remember but little at first—now I remember that I could not then recall what I had for breakfast. After a few days' practice I found I could recall more. Events came back to me more minutely, more accurately, and more vividly than at first. After a fortnight or so of this, Catherine said 'why don't you relate to me the events of the day instead of recalling them to yourself? It would be interesting and my interest in it would be a stimulus to you.' Having great respect for my wife's opinion, I began a habit of oral confession, as it were, which was continued for almost fifty years. Every night, the last thing before retiring, I told her everything I could remember that had happened to me, or about me, during the day. I generally recalled the very dishes I had for breakfast, dinner and tea; the people I had seen, and what they had said; the editorials

I had written for my paper, giving her a brief abstract of them; I mentioned all the letters I had seen and received, and the very language used, as nearly as possible; when I had walked or ridden—I told her everything that had come within my observation. I found that I could say my lessons better and better every year, and instead of the practice growing irksome, it became a pleasure to go over again the events of the day. I am indebted to this discipline for a memory of unusual tenacity, and I recommend the practice to all who wish to store up facts, or expect to have much to do with influencing men."

The careful student, after reading these words of Thurlow Weed, will see that in them he has not only given a method of recalling the particular class of occurrences mentioned in this lesson, but has also pointed out a way whereby the entire field of memory may be trained and developed. The habit of reviewing and "telling" the things that one perceives, does and thinks during the day, naturally sharpens the powers of future observation, attention and perception. If you are witnessing a thing which you know that

you will be called upon to describe to another person, you will instinctively apply your attention to it. The knowledge that you will be called upon for a description of a thing will give the zest of interest or necessity to it, which may be lacking otherwise. If you will "sense" things with the knowledge that you will be called upon to tell of them later on, you will give the interest and attention that go to make sharp, clear and deep impressions on the memory. In this case the seeing and hearing has "a meaning" to you, and a purpose. In addition to this, the work of review establishes a desirable habit of mind. If you don't care to relate the occurrences to another person—learn to tell them to yourself in the evening. Play the part yourself. There is a valuable secret of memory imbedded in this chapter—if you are wise enough to apply it.

CHAPTER XVII.

HOW TO REMEMBER FACTS.

In speaking of this phase of memory we use the word "fact" in the sense of "an ascertained item of knowledge," rather than in the sense of "a happening," etc. In this sense the Memory of Facts is the ability to store away and recollect items of knowledge bearing upon some particular thing under consideration. If we are considering the subject of "Horse," the "facts" that we wish to remember are the various items of information and knowledge regarding the horse, that we have acquired during our experience —facts that we have seen, heard or read, regarding the animal in question and to that which concerns it. We are continually acquiring items of information regarding all kinds of subjects, and yet when we wish to collect them we often find the task rather difficult, even though the original impressions were quite clear. The difficulty is largely due

to the fact that the various facts are associated in our minds only by contiguity in time or place, or both, the associations of relation being lacking. In other words we have not properly classified and indexed our bits of information, and do not know where to begin to search for them. It is like the confusion of the business man who kept all of his papers in a barrel, without index, or order. He knew that "they are all *there,*" but he had hard work to find any one of them when it was required. Or, we are like the compositor whose type has become "pied," and then thrown into a big box—when he attempts to set up a book page, he will find it very difficult, if not impossible—whereas, if each letter were in its proper "box," he would set up the page in a short time.

This matter of association by relation is one of the most important things in the whole subject of thought, and the degree of correct and efficient thinking depends materially upon it. It does not suffice us to merely "know" a thing—we must know where to find it when we want it. As old Judge Sharswood, of Pennsylvania, once said: "It

is not so much to know the law, as to know *where to find it.*" Kay says: "Over the associations formed by contiguity in time or space we have but little control. They are in a manner accidental, depending upon the order in which the objects present themselves to the mind. On the other hand, association by similarity is largely put in our own power; for we, in a measure, select those objects that are to be associated, and bring them together in the mind. We must be careful, however, only to associate together such things as we wish to be associated together and to recall each other; and the associations we form should be based on fundamental and essential, and not upon mere superficial or casual resemblances. When things are associated by their accidental, and not by their essential qualities,—by their superficial, and not by their fundamental relations, they will not be available when wanted, and will be of little real use. When we associate what is new with what most nearly resembles it in the mind already, we give it its proper place in our fabric of thought. By means of association by similarity, we tie up our ideas, as it

were, in separate bundles, and it is of the utmost importance that all the ideas that most nearly resemble each other be in one bundle."

The best way to acquire correct associations, and many of them, for a separate fact that you wish to store away so that it may be recollected when needed—some useful bit of information or interesting bit of knowledge, that "may come in handy" later on—is to *analyze* it and its relations. This may be done by asking yourself questions about it—each thing that you associate it with in your answers being just one additional "cross-index" whereby you may find it readily when you want it. As Kay says: "The principle of asking questions and obtaining answers to them, may be said to characterize all intellectual effort." This is the method by which Socrates and Plato drew out the knowledge of their pupils, filling in the gaps and attaching new facts to those already known. When you wish to so consider a fact, ask yourself the following questions about it:

I. Where did it come from or originate?
II. What caused it?
III. What history or record has it?

IV. What are its attributes, qualities and characteristics?

V. What things can I most readily associate with it? What is it like?

VI. What is it good for—how may it be used—what can I do with it?

VII. What does it prove—what can be deduced from it?

VIII. What are its natural results—what happens because of it?

IX. What is its future; and its natural or probable end or finish?

X. What do I think of it, on the whole—what are my general impressions regarding it?

XI. What do I know about it, in the way of general information?

XII. What have I heard about it, and from whom, and when?

If you will take the trouble to put any "fact" through the above rigid examination, you will not only attach it to hundreds of convenient and familiar other facts, so that you will remember it readily upon occasion, but you will also create a new subject of general information in your mind of which this par-

ticular fact will be the central thought. Similar systems of analysis have been published and sold by various teachers, at high prices—and many men have considered that the results justified the expenditure. So do not pass it by lightly.

The more other facts that you manage to associate with any one fact, the more pegs will you have to hang your facts upon—the more "loose ends" will you have whereby to pull that fact into the field of consciousness—the more cross indexes will you have whereby you may "run down" the fact when you need it. The more associations you attach to a fact, the more "meaning" does that fact have for you, and the more interest will be created regarding it in your mind. Moreover, by so doing, you make very probable the "automatic" or involuntary recollection of that fact when you are thinking of some of its associated subjects; that is, it will come into your mind naturally in connection with something else—in a "that reminds me" fashion. And the oftener that you are involuntarily "reminded" of it, the clearer and deeper does its impression become on the

records of your memory. The oftener you use a fact, the easier does it become to recall it when needed. The favorite pen of a man is always at his hand in a remembered position, while the less used eraser or similar thing has to be searched for, often without success. And the more associations that you bestow upon a fact, the oftener is it likely to be used.

Another point to be remembered is that the future association of a fact depends very much upon your system of filing away facts. If you will think of this when endeavoring to store away a fact for future reference, you will be very apt to find the best mental pigeonhole for it. File it away with *the thing it most resembles,* or to which it has the most familiar relationship. The child does this, involuntarily—it is nature's own way. For instance, the child sees a zebra, it files away that animal as "a donkey with stripes;" a giraffe as a "long-necked horse;" a camel as a "horse with long, crooked legs, long neck and humps on its back." The child always attaches its new knowledge or fact on to some familiar fact or bit of knowledge—sometimes the re-

sult is startling, but the child remembers by means of it nevertheless. The grown up children will do well to build similar connecting links of memory. Attach the new thing to some old familiar thing. It is easy when you once have the knack of it. The table of questions given a little farther back will bring to mind many connecting links. Use them.

If you need any proof of the importance of association by relation, and of the laws governing its action, you have but to recall the ordinary "train of thought" or "chain of images" in the mind, of which we become conscious when we are day-dreaming or indulging in reverie, or even in general thought regarding any subject. You will see that every mental image or idea, or recollection is associated with and connected to the preceding thought and the one following it. It is a chain that is endless, until something breaks into the subject from outside. A fact flashes into your mind, apparently from space and without any reference to anything else. In such cases you will find that it occurs either because you had previously set your subconscious mentality at work upon some prob-

lem, or bit of recollection, and the flash was the belated and delayed result; or else that the fact came into your mind because of its association with some other fact, which in turn came from a precedent one, and so on. You hear a distant railroad whistle and you think of a train; then of a journey; then of some distant place; then of some one in that place; then of some event in the life of that person; then of a similar event in the life of another person; then of that other person; then of his or her brother; then of that brother's last business venture; then of that business; then of some other business resembling it; then of some people in that other business; then of their dealings with a man you know; then of the fact that another man of a similar name to the last man owes you some money; then of your determination to get that money; then you make a memorandum to place the claim in the hands of a lawyer to see whether it cannot be collected now, although the man was "execution proof" last year—from distant locomotive whistle to the possible collection of the account. And yet, the links forgotten, the man will say that he

"just happened to think of" the debtor, or that "it somehow flashed right into my mind," etc. But it was nothing but the law of association—that's all. Moreover, you will now find that whenever you hear mentioned the term "association of mental ideas," etc., you will remember the above illustration or part of it. We have forged a new link in the chain of association for you, and years from now it will appear in your thoughts.

CHAPTER XVIII.

HOW TO REMEMBER WORDS, ETC.

In a preceding chapter we gave a number of instances of persons who had highly developed their memory of words, sentences, etc. History is full of instances of this kind. The moderns fall far behind the ancients in this respect; probably because there does not exist the present necessity for the feats of memory which were once accepted as commonplace and not out of the ordinary. Among ancient people, when printing was unknown and manuscripts scarce and valuable, it was the common custom of the people to learn "by heart" the various sacred teachings of their respective religions. The sacred books of the Hindus were transmitted in this way, and it was a common thing among the Hebrews to be able to recite the books of Moses and the Prophets entirely from memory. Even to this day the faithful Mohammedans are taught to commit the entire

Koran to memory. And investigation reveals, always, that there has been used the identical process of committing these sacred books to memory, and recalling them at will —the natural method, instead of an artificial one. And therefore we shall devote this chapter solely to this method whereby poems or prose may be committed to memory and recalled readily.

This natural method of memorizing words, sentences, or verses is no royal road. It is a system which must be mastered by steady work and faithful review. One must start at the beginning and work his way up. But the result of such work will astonish anyone not familiar with it. It is the very same method that the Hindus, Hebrews, Mohammedans, Norsemen, and the rest of the races, memorized their thousands of verses and hundreds of chapters of the sacred books of their people. It is the method of the successful actor, and the popular elocutionist, not to mention those speakers who carefully commit to memory their "impromptu" addresses and "extemporaneous" speeches.

This natural system of memorizing is based

upon the principle which has already been alluded to in this book, and by which every child learns its alphabet and its multiplication table, as well as the little "piece" that it recites for the entertainment of its fond parents and the bored friends of the family. That principle consists of the learning of one line at a time, and reviewing that line; then learning a second line and reviewing that; and then reviewing the two lines together; and so on, each addition being reviewed in connection with those that went before. The child learns the sound of "A;" then it learns "B;" then it associates the sounds of "A, B" in its first review; the "C" is added and the review runs: "A, B, C." And so on until "Z" is reached and the child is able to review the entire list from "A to Z," inclusive. The multiplication table begins with its "twice 1 is 2," then "twice 2 is 4," and so on, a little at a time until the "twos" are finished and the "threes" begun. This process is kept up, by constant addition and constant review, until "12 twelves" finishes up the list, and the child is able to repeat the "tables" from first to last from memory.

But there is more to it, in the case of the child, than merely learning to repeat the alphabet or the multiplication table—there is also the strengthening of the memory as a result of its exercise and use. Memory, like every faculty of the mind, or every muscle of the body, improves and develops by intelligent and reasonable use and exercise. Not only does this exercise and use develop the memory along the particular line of the faculty used, but also along *every* line and faculty. This is so because the exercise develops the power of concentration, and the use of the voluntary attention.

We suggest that the student who wishes to acquire a good memory for words, sentences, etc., begin at once, selecting some favorite poem for the purpose of the demonstration. Then let him memorize one verse of not over four to six lines to begin with. Let him learn this verse perfectly, line by line, until he is able to repeat it without a mistake. Let him be sure to be "letter perfect" in that verse—so perfect that he will "see" even the capital letters and the punctuation marks when he recites it. Then let him stop

for the day. The next day let him repeat the verse learned the day before, and then let him memorize a second verse in the same way, and just as perfectly. Then let him review the first and second verses together. This addition of the second verse to the first serves to weld the two together by association, and each review of them together serves to add a little bit to the weld, until they become joined in the mind as are "A, B, C." The third day let him learn a third verse, in the same way and then review the three. Continue this for say a month, adding a new verse each day and adding it to the verses preceding it. But constantly review them from beginning to end. He cannot review them too often. He will be able to have them flow along like the letters of the alphabet, from "A" to "Z" if he reviews properly and often enough.

Then, if he can spare the time, let him begin the second month by learning *two verses* each day, and adding to those that precede them, with constant and faithful reviews. He will find that he can memorize two verses, in the second month, as easily as he did the one

verse in the first month. His memory has been trained to this extent. And so, he may proceed from month to month, adding an extra verse to his daily task, until he is unable to spare the time for all the work, or until he feels satisfied with what he has accomplished. Let him use moderation and not try to become a phenomenon. Let him avoid overstraining. After he has memorized the entire poem, let him start with a new one, but not forget to revive the old one at frequent intervals. If he finds it impossible to add the necessary number of new verses, by reason of other occupation, etc., let him not fail to keep up his review work. The exercise and review is more important than the mere addition of so many new verses.

Let him vary the verses, or poems with prose selections. He will find the verses of the Bible very well adapted for such exercise, as they lend themselves easily to registration in the memory. Shakespeare may be used to advantage in this work. The "Rubaiyat" of Omar Khayyam; or the "Lady of the Lake" by Scott; or the "Song Celestial" or "Light of Asia" both by Edwin Arnold, will

be found to be well adapted to this system of memorizing, the verses of each being apt to "stick in the memory," and each poem being sufficiently long to satisfy the requirements of even the most ambitious student. To look at the complete poem (any of those mentioned) it would seem almost impossible that one would ever be able to memorize and recite it from beginning to end, letter perfect. But on the principle of the continual dripping of water wearing away the stone; or the snowball increasing at each roll; this practice of a little being associated to what he already has will soon allow him to accumulate a wonderfully large store of memorized verses, poems, recitations, etc. It is an actual demonstration of the catchy words of the popular song which informs one that: "Every little bit, added to what you've got, makes just a little bit more."

After he has acquired quite a large assortment of memorized selections, he will find it impossible to review them all at one time. But he should be sure to review them all at intervals, no matter how many days may elapse between each review.

The student who has familiarized himself with the principles upon which memory depends, as given in the preceding chapters, will at once see that the three principles of attention, association and repetition are employed in the natural method herein recommended. Attention must be given in order to memorize each verse in the first place; association is employed in the relationship created between the old verses and the new ones; and repetition is employed by the frequent reviewing, which serves to deepen the memory impression each time the poem is repeated. Moreover, the principle of interest is invoked, in the gradual progress made, and the accomplishment of what at first seemed to be an impossible task—the game element is thus supplied, which serves as an incentive. These combined principles render this method an ideal one, and it is not to be wondered that the race has so recognized it from the earliest times.

CHAPTER XIX.

HOW TO REMEMBER BOOKS, PLAYS, TALES, ETC.

In the preceding chapters we have given you suggestions for the development of the principal forms of memory. But there are still other phases or forms of memory, which while coming under the general classification may be still considered as worthy of special consideration. For instance there may be suggestions given regarding the memorization of the contents of the books you read, the stories you hear, etc. And so we have thought it advisable to devote one chapter to a consideration of these various phases of memory that have been "left out" of the other chapters.

Many of us fail to remember the important things in the books we read, and are often mortified by our ignorance regarding the contents of the works of leading authors, or of popular novels, which although we have read, we have failed to impress upon the records

of our memory. Of course we must begin by reminding you of the ever present necessity of interest and attention—we cannot escape from these principles of the memory. The trouble with the majority of people is that they read books "to kill time," as a sort of mental narcotic or anæsthetic, instead of for the purpose of obtaining something of interest from them. By this course we not only lose all that may be of importance or value in the book, but also acquire the habit of careless reading and inattention. The prevalence of the habit of reading many newspapers and trashy novels is responsible for the apparent inability of many persons to intelligently absorb and remember the contents of a book "worth while" when they do happen to take up such a one. But, still, even the most careless reader may improve himself and cure the habit of inattention and careless reading.

Noah Porter says: "We have not *read* an author till we have seen his object, whatever it may be, as he *saw* it." Also: "Read with attention. This is the rule that takes precedence of all others. It stands instead of a

score of minor directions. Indeed it comprehends them all, and is the golden rule. . . . The page should be read as if it were never to be seen a second time; the mental eye should be fixed as if there were no other object to think of; the memory should grasp the facts like a vise; the impressions should be distinctly and sharply received." It is not necessary, nor is it advisable to attempt to *memorize* the text of a book, excepting, perhaps, a few passages that may seem worthy to be treasured up word for word. The principal thing to be remembered about a book is its *meaning*—what it is about. Then may follow the general outline, and the details of the story, essay, treatise or whatever it may be. The question that should be asked oneself, after the book is completed, or after the completion of some particular part of the book, is: "What was the writer's idea—what did he wish to say?" Get the *idea* of the writer. By taking this mental attitude you practically place yourself in the place of the writer, and thus *take part* in the idea of the book. You thus view it from the inside, rather than from the outside. You

place yourself at the centre of the thing, instead of upon its circumference.

If the book be a history, biography, autobiography, narrative, or story of fact or fiction, you will find it of value to visualize its occurrences as the story unfolds. That is, endeavor to form at least a faint mental picture of the events related, so that you see them "in your mind's eye," or imagination. Use your imagination in connection with the mechanical reading. In this way you build up a series of mental pictures, which will be impressed upon your mind, and which will be remembered just as are the scenes of a play that you have witnessed, or an actual event that you have seen, only less distinct of course. Particularly should you endeavor to form a clear mental picture of each character, until each one is endowed with at least a semblance of reality to you. By doing this you will impart a naturalness to the events of the story and you will obtain a new pleasure from your reading. Of course, this plan will make you read more slowly, and many trashy tales will cease to interest you, for they do not contain the real elements of in-

terest—but this is no loss, but is a decided gain for you. At the end of each reading, take the time to mentally review the progress of the story—let the characters and scenes pass before your mental vision as in a moving picture. And when the book is finally completed, review it as a whole. By following this course, you will not only acquire the habit of easily remembering the tales and books that you have read, but will also obtain much pleasure by re-reading favorite stories in your imagination, years after. You will find that your favorite characters will take on a new reality for you, and will become as old friends in whose company you may enjoy yourself at any time, and whom you may dismiss when they tire you, without offense.

In the case of scientific treatises, essays, etc., you may follow a similar plan by dividing the work into small sections and mentally reviewing the *thought*—(not the words) of each section until you make it your own; and then by adding new sections to your review, you may gradually absorb and master the entire work. All this requires time, work and patience, but you will be repaid for your ex-

penditure. You will find that this plan will soon render you impatient at books of little consequence, and will drive you to the best books on any given subject. You will begin to begrudge your time and attention, and hesitate about bestowing them upon any but the very best books. But in this you gain.

In order to fully acquaint yourself with a book, before reading it you should familiarize yourself with its general character. To do this you should pay attention to the full title, and the sub-title, if there be any; the name of the author and the list of other books that he has written, if they are noted on the title page, or the one preceding it, according to the usual custom. You should read the preface and study carefully the table of contents, that you may know the field or general subject covered by the book—in other words endeavor to get the general outline of the book, into which you may afterwards fill in the details.

In reading a book of serious import, you should make it a point to fully grasp the meaning of each paragraph before passing on to the next one. Let nothing pass you that

you do not understand, at least in a general way. Consult the dictionary for words not familiar to you, so that you may grasp the full idea intended to be expressed. At the end of each chapter, section and part, you should review that which you have read, until you are able to form a mental picture of the general ideas contained therein.

To those who wish to remember the dramatic productions that they have attended, we would say that the principles above mentioned may be applied to this form of memory as well as to the memory of books. By taking an interest in each character as it appears; by studying carefully each action and scene, and then reviewing each act in the intervals between the acts; and by finally reviewing the entire play after your return home; you will fasten the whole play as a complete mental picture, on the records of your memory. If you have acquainted yourself with what we have just said regarding the recollection of the contents of books, you will be able to modify and adapt them to the purpose of recollecting plays and dramatic productions. You will find that the oftener

you review a play, the more clearly will you remember it. Many little details overlooked at first will come into the field of consciousness and fit into their proper places.

Sermons, lectures and other discourses may be remembered by bestowing interest and attention upon them, and by attempting to grasp each general idea advanced, and by noting the passage from one general idea to another. If you will practice this a few times, you will find that when you come to review the discourse (and this you should always do—it is the natural way of developing memory) the little details will come up and fit into their proper places. In this form of memory, the important thing is to train the memory by exercise and review. You will find that at each review of a discourse you will have made progress. By practice and exercise, the subconscious mentality will do better work, and will show that it is rising to its new responsibilities. You have allowed it to sleep during the many discourses to which you have listened, and it must be taught new habits. Let it know that it is expected to retain that which it hears, and then

exercise it frequently by reviews of discourses, and you will be surprised at the degree of the work it will perform for you. Not only will you remember better, but you will *hear* better and more intelligently. The subconsciousness, knowing that it will be called upon later on to recollect what is being said, will urge you to bestow the attention necessary to supply it with the proper material.

To those who have had trouble in remembering discourses, we urge that they should begin to attend lectures and other forms of discourse, with the distinct purpose of developing that form of memory. Give to the subconscious mentality the positive command that it shall attend to what is being said, and shall record the same in such a way that when you review the discourse afterward you will be presented with a good synopsis or syllabus of it. You should avoid any attempt to memorize the *words* of the discourse—your purpose being to absorb and record the *ideas* and general thought expressed. Interest—Attention—Practice—Review—these are the important points in memory.

To remember stories, anecdotes, fables, etc., the principles given above are to be employed. The main thing in memorizing an anecdote is to be able to catch the *fundamental idea* underlying it, and the epigrammatic sentence, or central phrase which forms the "point" of the story. Be sure that you catch these perfectly, and then commit the "point" to memory. If necessary make a memorandum of the point, until you have opportunity to review the story in your mind. Then carefully review it mentally, letting the mental image of the idea pass before you in review, and then repeating it to yourself in your own words. By rehearsing and reviewing the story, you make it your own and will be able to relate it afterward just as you would something that you had actually experienced. So true is this principle, that when carried too far it endows the story with a false sense of actuality—who has not known men who told a story so often that they came actually to believe it themselves? Do not carry the principle to this extreme but use it in moderation. The trouble with many men is that they attempt to repeat a tale, long

after they have heard it, without reviewing or rehearsing in the meantime. Consequently they omit many important points, because they have failed to impress the story as a whole upon the memory. In order to *know* an anecdote properly, one should be able to *see* its characters and incidents, just as he does when he sees an illustrated joke in a comic paper. If you can make a mental picture of an anecdote, you will be apt to remember it with ease. The noted story tellers review and rehearse their jokes, and have been known to try them on their unsuspecting friends in order to get the benefit of practice before relating them in public—this practice has been called by flippant people: "trying it on the dog." But it has its good points, and advantages. It at least saves one the mortification of being compelled to finish up a long-drawn out tale by an: "Er—well, um-m-m—I'm afraid I've forgotten just how that story ended—but it was a good one!"

CHAPTER XX.

GENERAL INSTRUCTIONS.

In this chapter we shall call your attention to certain of the general principles already mentioned in the preceding chapters, for the purpose of further impressing them upon your mind, and in order that you may be able to think of and to consider them independent of the details of the special phases of memory. This chapter may be considered in the nature of a general review of certain fundamental principles mentioned in the body of the work.

POINT I. *Give to the thing that you wish to memorize, as great a degree of concentrated attention as possible.*

We have explained the reason for this advice in many places in the book. The degree of concentrated attention bestowed upon the object under consideration, determines the strength, clearness and depth of the impression received and stored away in the subconsciousness. The character of these stored

away impressions determines the degree of ease in remembrance and recollection.

POINT II. *In considering an object to be memorized, endeavor to obtain the impressions through as many faculties and senses as possible.*

The reason for this advice should be apparent to you, if you have carefully read the preceding chapters. An impression received through both sound and sight is doubly as strong as one received through but one of these channels. You may remember a name, or word, either by having seen it in writing or print; or else by reason of having heard it; but if you have both *seen and heard* it you have a double impression, and possess two possible ways of reviving the impression. You are able to remember an orange by reason of having seen it, smelt it, felt it and tasted it, and having heard its name pronounced. Endeavor to know a thing from as many sense impressions as possible—use the eye to assist ear-impressions; and the ear to assist in eye-impressions. See the thing from as many angles as possible.

POINT III. *Sense impressions may be*

strengthened by exercising the particular faculty through which the weak impressions are received.

You will find that either your eye memory is better than your ear memory, or vice versa. The remedy lies in exercising the weaker faculty, so as to bring it up to the standard of the stronger. The chapters of eye and ear training will help you along these lines. The same rule applies to the several phases of memory—develop the weak ones, and the strong ones will take care of themselves. The only way to develop a sense or faculty is to intelligently train, exercise and use it. Use, exercise and practice will work miracles in this direction.

POINT IV. *Make your first impression strong and firm enough to serve as a basis for subsequent ones.*

Get into the habit of fixing a clear, strong impression of a thing to be considered, from the first. Otherwise you are trying to build up a large structure upon a poor foundation. Each time you revive an impression you deepen it, but if you have only a dim impression to begin with, the deepened impressions

will not include details omitted in the first one. It is like taking a good sharp negative of a picture that you intend to enlarge afterward. The details lacking in the small picture will not appear in the enlargement; but those that *do* appear in the small one, will be enlarged with the picture.

POINT V. *Revive your impressions frequently and thus deepen them.*

You will know more of a picture by seeing it a few minutes every day for a week, than you would by spending several hours before it at one time. So it is with the memory. By recalling an impression a number of times, you fix it indelibly in your mind in such a way that it may be readily found when needed. Such impressions are like favorite tools which you need every little while—they are not apt to be mislaid as are those which are but seldom used. Use your imagination in "going over" a thing that you wish to remember. If you are studying a thing, you will find that this "going over" in your imagination will help you materially in disclosing the things that you have not remembered about it. By thus recognizing your

weak points of memory, you may be able to pick up the missing details when you study the object itself the next time.

POINT VI. *Use your memory and place confidence in it.*

One of the important things in the cultivation of the memory is the actual use of it. Begin to trust it a little, and then more, and then still more, and it will rise to the occasion. The man who has to tie a string around his finger in order to remember certain things, soon begins to cease to use his memory, and in the end forgets to remember the string, or what it is for. There are many details, of course, with which it is folly to charge the memory, but one should never allow his memory to fall into disuse. If you are in an occupation in which the work is done by mechanical helps, then you should exercise the memory by learning verses, or other things, in order to keep it in active practice. Do not allow your memory to atrophy.

POINT VII. *Establish as many associations for an impression, as possible.*

If you have studied the preceding chapters,

you will recognize the value of this point. Association is memory's method of indexing and cross-indexing. Each association renders it easier to remember or recollect the thing. Each association gives you another string to your mental bow. Endeavor to associate a new bit of knowledge with something already known by, and familiar to you. In this way to avoid the danger of having the thing isolated and alone in your mind—without a label, or index number and name, connect your object or thought to be remembered with other objects or thoughts, by the association of contiguity in space and time, and by relationship of kind, resemblance or oppositeness. Sometimes the latter is very useful, as in the case of the man who said that "Smith reminds me so much of Brown—he's so *different.*" You will often be able to remember a thing by remembering something else that happened at the same place, or about the same time—these things give you the "loose ends" of recollection whereby you may unwind the ball of memory. In the same way, one is often able to recollect names by slowly running over the alphabet, with a pencil,

until the sight of the capital first letter of the name brings the memory of those following it—this, however, only when the name has previously been memorized by *sight*. In the same way the first few notes of a musical selection will enable you to remember the whole air; or the first words of a sentence, the entire speech or selection following it. In trying to remember a thing which has escaped you, you will find it helpful to think of something associated with that thing, even remotely. A little practice will enable you to recollect the thing along the lines of the faintest association or clue. Some men are adept memory detectives, following this plan. The "loose end" in memory is all the expert requires. Any associations furnish these loose ends. An interesting and important fact to remember in this connection is that if you have some one thing that tends to escape your memory, you may counteract the trouble by noting the associated things that have previously served to bring it into mind with you. The associated thing once noted, may thereafter be used as a loose end with which to unwind the elusive fact or impres-

sion. This idea of association is quite fascinating when you begin to employ it in your memory exercises and work. And you will find many little methods of using it. But always use natural association, and avoid the temptation of endeavoring to tie your memory up with the red-tape of the artificial systems.

POINT VIII. *Group your impressions.*

This is but a form of association, but is very important. If you can arrange your bits of knowledge and fact into logical groups, you will always be master of your subject. By associating your knowledge with other knowledge along the same general lines, both by resemblances and by opposites, you will be able to find what you need just when you need it. Napoleon Bonaparte had a mind trained along these lines. He said that his memory was like a large case of small drawers and pigeon-holes, in which he filed his information according to its kind. In order to do this he used the methods mentioned in this book of comparing the new thing with the old ones, and then deciding into which group it naturally fitted. This is largely a matter of

practice and knack, but it may be acquired by a little thought and care, aided by practice. And it will repay one well for the trouble in acquiring it. The following table will be found useful in classifying objects, ideas, facts, etc., so as to correlate and associate them with other facts of a like kind. The table is to be used in the line of questions addressed to oneself regarding the thing under consideration. It somewhat resembles the table of questions given in Chapter XVII, of this book, but has the advantage of brevity. Memorize this table and use it. You will be delighted at the results, after you have caught the knack of applying it.

QUERY TABLE. *Ask yourself the following questions regarding the thing under consideration. It will draw out many bits of information and associated knowledge in your mind:*

(1) WHAT? (5) HOW?
(2) WHENCE? (6) WHY?
(3) WHERE? (7) WHITHER?
(4) WHEN?

While the above Seven Queries are given you as a means of acquiring clear impres-

sions and associations, they will also serve as a Magic Key to Knowledge, if you use them intelligently. If you can answer these questions regarding anything, you will know a great deal about that particular thing. And after you have answered them fully, there will be but little unexpressed knowledge regarding that thing left in your memory. Try them on some one thing—you cannot understand them otherwise, unless you have a very good imagination.

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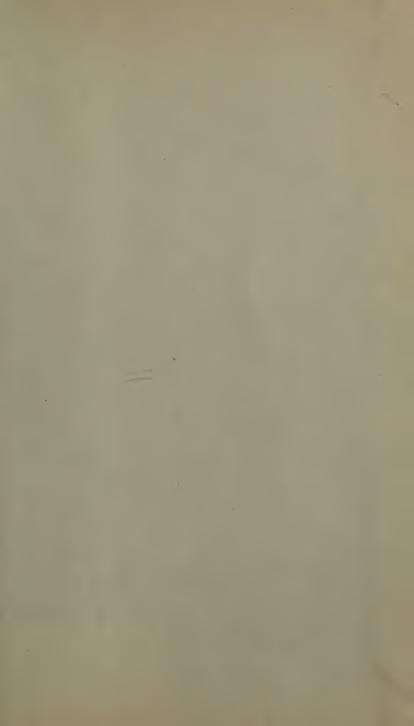
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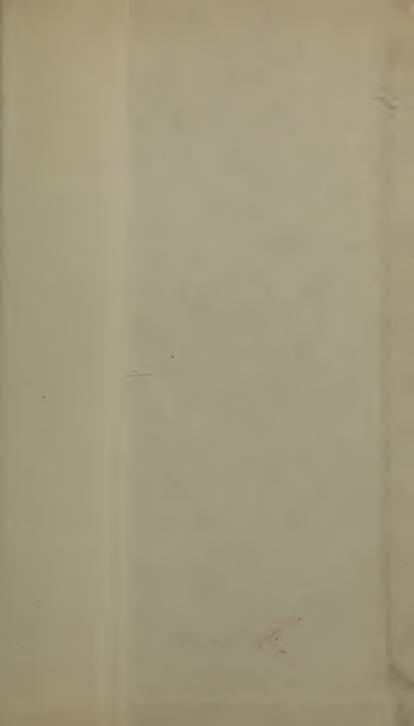
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विषय-सूची

विषय सूची

. रीढ़ की हड्डी, गर्दन, पीठ एवं कंधे के रोग
(i) रीढ़ की हड्डी की आकृति, अध्ययन एवं प्रतिबिम्ब केन्द्र (ii) गर्दन से सम्बन्धित रोग एवं उपचार (a) सरवाइकल स्पोन्डीलोसिस (चक्कर आना) (b) गर्दन में ऐठन, कन्धे में दर्द एवं जकड़न (iii) पीठ, कूल्हे, पैरों एवं एड़ियो का दर्द उपचार एवं प्रतिबिम्ब केन्द्र

. हृदय एवं रक्त संचार सम्बन्धी रोग एवं उपचार
(i) हृदय की आकृति एवं कार्य प्रणाली (ii) हृदय तथा रक्त संचार सम्बन्धी रोग एवं निवारण (iii) उच्च रक्तचाप (हाईब्लड प्रेशर) (iv) निम्न रक्तचाप (लो ब्लड प्रेशर) (v) उच्च रक्तचाप से सम्बन्धित प्रेशर बिन्दु (vi) निम्न रक्तचाप से सम्बन्धित केन्द्र बिन्दु (vii) हृदय के वाल्व का प्रतिबिम्ब केन्द्र (viii) रक्तचाप सम्बन्धित तालिका

. पाचन तंत्र
(i) पाचन तंत्र के प्रमुख भाग लीवर-यकृत, आमाशय, आंतें (ii) यकृत के प्रमुख कार्य (iii) एक्युप्रेशर द्वारा इसके रोगो का उपचार (iv) भोजन एवं अन्य ध्यान देने योग्य बातें (v) पाचन तंत्र के अन्य रोग (vi) अपेंडिसाइटिस (vii) कब्ज, बवासीर (viii) अन्य पेट सम्बन्धी रोग (ix) पेच्यूटी, नाभिचक्र के अस्थायी रोग (x) Disorders of the Digestive System

. शियाटिका
(i) शियाटिका रोग के कारण (ii) रोग के प्रमुख लक्षण (iii) रोग निदान

. गुर्दे तथा मूत्राशय सम्बन्धी रोग
(i) गुर्दे के रोगों के लक्षण (ii) गुर्दे की पथरी (iii) मूत्राशय की पथरी

. मधुमेह
(i) रोग के कारण (ii) मधुमेह के रोगियों के लिए आहार एवं अन्य जानकारी (iii) एक्युप्रेशर और मधुमेह

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प्रस्तावना

एक्युप्रेशर उपचार-पद्धति प्रकृति-प्रदत्त विज्ञान है। हमारे ऋषि, मुनि और गृहस्थ इसका उपयोग करते रहे हैं, पर विज्ञान के पीछे अंधी दौड़ के कारण भारत के इस प्राचीन ज्ञान को हमने भुला दिया है। सुश्रुत के लेखों मे इस विद्या का उल्लेख है, एवं 3000 वर्ष पूर्व यह पद्धति भारत में प्रचलित थी। इस सहजपूर्ण, अहिंसक और निशुल्क पद्धति के व्यापक प्रचार व अध्ययन द्वारा विश्व आरोग्य विशेषकर भारत जैसे अनेक विकासशील एवं निर्धन देशों की गहन समस्या सरलता से हल की जा सकती है।

हम सभी नीरोग, स्वस्थ एवं सुखी रहना चाहते हैं और विभिन्न संप्रदायों से जुड़े हुए विभिन्न विधियों और नियमों के अन्तर्गत प्रयासरत भी रहते हैं। मानव शरीर संश्लिष्ट दोषरहित उपकरण है, जो कि संपूर्ण क्रियाये स्वतः संचालित करता रहता है। उसकी अपनी संपन्न, कारगर, अत्यन्त प्रभावकारी, सहज और सार्वजनीन, सार्वकालिक, सार्वभौमिक एवं सार्वदेशिक विधियाँ हैं। उसके अन्तर्गत यदि हम भोजन, श्रम और विश्राम मे संतुलन न रखें और इनके आधारभूत नियमों का उल्लघंन करते हैं, तो शरीर में विषैले तत्वों का संग्रह प्रारम्भ हो जाता है जिसके फलस्वरूप जैव-रसायनिक, जैव-ऊर्जा और अन्य शारीरिक क्रियाओं पर प्रभाव पड़ता है। शरीर में इन अवांछनीय तत्वों का संग्रह ही रोग है। जिसका नामकरण सम्बन्धित लक्षणों, शरीर के अंगों या सूक्ष्मजीवों के आधार पर किया जाता है। इस चिकित्सा पद्धति के

एवं सर्वग्राह्य है। हमारे ऋषि, मुनि, साधु, संत और गृहस्थ इसका प्रयोग करते रहे हैं। आज भी अनेक आभूषणों और वस्त्रों का उपयोग, गृहकार्य और श्रमकार्यों में एक्युप्रेशर जुड़ा हुआ है। हाथ में कड़ा, पैर में झांझ, गले में हार, छोटे बच्चों को काला धागा पहनाना, कान में जनेऊ का लपेटना, हाथ मे कलेवा बाँधना, कपड़े धोना, कुएं से पानी निकालना, लस्सी बनाना, बेलन चलाना, सर पर घड़ा रखना आदि के मूल में एक्युप्रेशर समाया हुआ है। पद्मासन, अर्द्धपद्मासन, सुखासन, वज्रासन आदि द्वारा योग में एवं नित्यप्रति के क्रिया-कलापों द्वारा किस प्रकार यह विधि हमें लाभान्वित करती आ रही है। अब इस ज्ञान, सजगता और एकाग्रता में जब-जब दैनिक जीवन की क्रियाओं की प्रेक्षा करेंगे तो पीड़ा-मुक्त होने की, तनाव-मुक्त होने की और सुखी जीवन जीने की कला निश्चित जान जायेंगे। पर पुरातन मूल्यों को जानना है, श्रमजीवी होना है, स्वयं तपना है, तब ही पूर्ण लाभ होगा।

यह चिकित्सा पद्धति भारतवर्ष में 3000 वर्ष पूर्व प्रचलित थी पर शुद्ध रूप में यह विद्यमान न रह सकी। चीनी यात्री यहां निरन्तर आते-जाते रहते थे। यहां से सीख कर वे इस ज्ञान को चीन ले गये। धीरे-धीरे भारत में यह चिकित्सा लुप्त हो गई लेकिन चीन में इस चिकित्सा पद्धति का बहुत विस्तार हुआ और बाद में विशेषकर एक्युपंचर का जन्मदाता चीन को कहा जाने लगा।

भारत में लंका, चीन, जापान आदि देशों मे बौद्ध भिक्षु इस ज्ञान को लेकर गये। स्पष्ट उल्लेख मिले हैं कि छठी शताब्दी में बौद्ध भिक्षुओं ने इस ज्ञान को जापान पहुँचाया। जापान में यह पद्धति "शिआत्सु" के नाम से विकसित व लोकप्रिय हुई, इसे पूर्ण मान्यता प्राप्त हुई और इसके शिक्षण संस्थान स्थापित हुए। अमेरिका, ग्रेट ब्रिटेन, कनाडा, आस्ट्रेलिया, भारत आदि देशों में भी अब यह लोकप्रिय होती जा रही है। इस लोकप्रियता का प्रमुख कारण है इस पद्धति की सहजता और यह विशेषता कि यह रोगी को घर बैठे, सिनेमा या टी.वी. देखते, चलते-फिरते यात्रा करते किसी भी स्थान पर दी जा सकती है।

प्राकृतिक नियमों के उल्लंघन के परिणाम-स्वरूप रोग उत्पन्न होते हैं। पर इस उल्लंघन को प्राकृतिक प्रक्रिया द्वारा जो कि हमारे शरीर में ही निहित है सुधारा भी जा सकता है। इस प्राकृतिक चिकित्सा पद्धति को हम स्वयं कर सकते हैं अपने

एक्युप्रेशर पद्धति एवं कार्य-प्रणाली :—

हमारा शरीर पृथ्वी, जल, अग्नि, वायु और आकाश पंच महाभूतों से निर्मित है। इसका संचालन हमारे देह में स्थित प्राण-शक्ति अर्थात् चेतना रूपी बिजली से होता है। इसे ही हम जैव-विद्युत अथवा जैव-शक्ति के रूप में जानते हैं। यह प्राण शक्ति हमारे शरीर में गर्भाधान के समय आती है। कुछ यौगिक क्रियाओं एवं ध्यान पद्धतियों द्वारा इसे कपाल के मध्य भाग मे बंद आँख से भी देखा जा सकता है। ध्यान की सूक्ष्म स्थितियों में शरीर में समग्र धारा प्रवाह की अनुभूति (अनुलोम व प्रतिलोम प्रक्रियाओं में) साधक इसके माध्यम से करते हैं। सूक्ष्मतर अवस्थाओ में भारहीन स्थिति के बोध के समय कहीं कोई स्थूलता नहीं, तरंगें ही तरंगें व सारा ब्रह्माण्ड प्रकंपित लगता है। क्यों? विद्युत प्रवाह दोनो हाथ पैरों की सभी अंगुलियों और सिर के मध्य प्रवाहित होता रहता है। चेतना के इस विद्युत प्रवाह की रेखाएँ चित्र में दिखाई गई हैं (चित्र देखें)। इन चौदह मेरीडियन रेखाओं के निकट अनेक दाब बिन्दु स्थित हैं।

जिनमें 361 दाब बिन्दु प्रमुख हैं। शरीर में प्रवाहित होने वाले इस जैव-विद्युत के स्विच बोर्ड दोनों हथेलियों और दोनों पगथलियों में हैं। पैर व हाथ के तलुवों में 7,200 स्नायु के सिरे स्थित हैं। विभिन्न रेखाचित्रों द्वारा भिन्न-भिन्न स्विचों की स्थिति एवं शरीर के अवयवों व ग्रंथियों से ये किस प्रकार संबद्ध हैं यह दर्शाया गया है। एक्युप्रेशर पद्धति के सिद्धांत के अनुसार शरीर के किसी अवयव में रक्त परिवहन या स्नायु तंत्र में अवरोध या हथेली व पगथली में स्थित स्नायु तंत्र से संबंधित अंग के अंतिम छोर पर उपस्थित अपद्रव्य या क्रिस्टल जमा होता है।

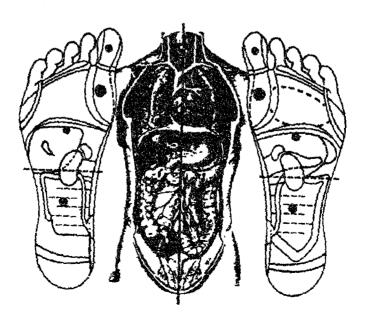
इनको दूर करने के लिए हथेली एवं पगथली के स्विचों या रिफ्लैक्स बिन्दुओं पर चिकित्सानुसार दबाव डालकर जैसे-जैसे ये अपद्रव्य या क्रिस्टल दूर होते जाते हैं त्यों-त्यों रोग का निवारण होता जाता है। स्नायु तंत्र तथा रक्त परिवहन तंत्र पुनः सुचारु रूप से चलने लगते हैं। जैव-ऊर्जा का संतुलन पुनः ठीक हो जाता है। हम स्वस्थ हो जाते हैं।

इस चिकित्सा पद्धति में शरीर को दस हिस्सों में बांटा जाना जोनोलोजी कहलाता है। शरीर के निर्दिष्ट जोन में दबाव देकर रोग से राहत पाना जोन थैरेपी के अन्तर्गत ही आता है। बायें हाथ की अंगुलियों पर दाब शरीर के बायें अंग के उपचार व दाहिने हाथ की अंगुलियों पर दाब दाहिने अंग के उपचार के लिये देते हैं। हाथ की हथेलियों

से जब रोगो की जांच व चिकित्सा की जाती है तो इसे 'हैण्ड रिफ्लेक्सोलॉजी' कहते हैं। जब रोग की पहचान व उपचार पैरो के तलवों द्वारा किया जाता है तो यह पद्धति 'फुट रिफ्लेक्सोलॉजी' के नाम से जानी जाती है। शरीर मे स्थित दाब बिन्दुओ के माध्यम से जब उपचार किया जाता है तब इसे 'शिआत्सु' कहते हैं। शिआत्सु जापानी भाषा का शब्द है जो कि दो अक्षरो से मिलकर बना है ''शि'' का अर्थ अंगुली और आत्सु का मतलब है दबाव।

उपचार विधि :—

सर्वप्रथम रोग की पहचान की जाती है। परीक्षण के लिए एक यंत्र का उपयोग करते है, जिसे जिमी कहते हैं। यह जिमी धातु या प्लास्टिक की बनी होती है जिसके दोनों सिरे गोल होते हैं। जिमी के स्थान पर गोल सिरे वाली पेन, पेन्सिल, अंगूठा, अंगुली आदि का प्रयोग भी किया जा सकता है। जिमी को पांव के तलवे या हथेली पर हल्के दबाव से धीरे-धीरे घुमाते हैं। रोगी को हथेली या पगथली के जिस हिस्से को दबाने पर पीड़ा की अनुभूति होती है उस स्विच से संबंधित अवयव में उपस्थित विकार का ज्ञान हो जाता है। इस प्रकार सभी स्विचों का परीक्षण करने के उपरान्त अस्वस्थ अंगों व रोगों का पंजीकरण कर लिया जाता है एवं पद्धति अनुसार चिकित्सक उपचार देता है।

आकृति 1

उपचार

उपचार के अन्तर्गत निर्दिष्ट पांव के तलवे या हथेली या शरीर के दाब बिन्दुओं पर निश्चित समय के लिए निश्चित दबाव चिकित्सक द्वारा अंगूठे, हथेली या जिमी या अन्य विधि से एक्युप्रेशर विशेषज्ञ तय करते है। यह दबाव रक्त संचार एवं जैव-विद्युत संचारित करके शरीर में स्फूर्ति व नई चेतना प्रदान करता है। दाब के प्रकार, प्रमाण और प्रयोग पर ध्यान दें। मुख्य नियम है रोग व अवयव को अधिक महत्व न देकर जहाँ पीड़ा हो उस बिन्दु व प्रतिवर्ती बिन्दुओ पर उपचार दें।

मानव के शरीर, मन और चेतना के गहनतम स्तरों तक शांति प्रदान करने का काम एक्युप्रेशर करता है। रोग रोकने, नष्ट करने व पुनः न होने देने का ज्ञान देना और आहार-विहार, रहन-सहन, आचार-विचार और पठन मे शुद्धि लाना एक्युप्रेशर का लक्ष्य है।

एक्युप्रेशर पद्धति सीधी, सरल और निर्मल है। बिना दवा के और बिना खर्च के काम करने वाली है। समय कम लगता है और जगह भी कम लगती है। अहिंसक है। अपने आप कर सकते हैं। विपरीत असर कोई नही और निदान साथ ही समाया हुआ है। अतः सामान्य मनुष्य को अति उपयोगी होने के कारण इसका प्रचार करने मे और तालीम लेने में सब को सहयोगी बनना चाहिए।

एक्युप्रेशर में निर्धारित दाब बिन्दुओ पर दबाव देने के लिए हाथ के अंगूठे और उंगलियो का उपयोग होता है। तलवे की चमड़ी कोमल न होने पर कभी कभी "जिमी" का उपयोग भी किया जाता है।

डॉ. हेरी एडवर्ट ने अपनी पुस्तक "Truth About Spiritual Heeling" मे अपने चालीस वर्षो के चिकित्सा शास्त्र के अनुभवो के बाद लिखा है कि प्रकृतिदत्त इस दुर्लभ मानव देह को दुनिया के चिकित्सक बीस फीसदी से ज्यादा समझ नही पाये है।

औषध-विज्ञान आज भी तीर-तुक्का ही बना हुआ है। छोटी-छोटी बीमारियो के लिए रोग से पीड़ित व्यक्ति एक के बाद दूसरे डॉक्टर का दरवाजा जीवन भर खटखटाते रहते हैं और उस मर्म के लिये निर्धारित औषधियो मे से प्रायः सभी का प्रयोग कर चुके होते हैं। पर उस कुचक्र मे धन, समय और स्वास्थ्य खोते रहते है पर हाथ कुछ भी नही लगता। यही स्थिति पिचानवे फीसदी रोगियो की होती है जो भिन्न-भिन्न औषधियो का आश्रय लेते रहते है। ऐलोपेथी, होमियोपेथी, आयुर्वेद एव ढेरों चिकित्सा पद्धतियां हैं और हर पद्धति का डॉक्टर अपनी-अपनी पद्धति का दावा

जोर-शोर से करता है और विज्ञान की नई-नई उपलब्धियों पर बढ़ा-चढ़ा कर दावे पेश करता है। पर हकीकत में देखा गया है कि उनमें से किसी में भी बहुत ज्यादा दम-खम नहीं है।

रोगी प्रायः इधर-उधर भटकते-भटकते जहां के तहां ही बने रहते हैं। यदि कोई रोगी अच्छा हो भी जाता है तो अपने शरीर की अन्तःशक्ति या प्रकृति मां की कृपा और मां के सानिध्य का पुरस्कार ही मान सकते है।

अतः अन्तःशक्ति और प्रकृति की कृपा ही कारगर हो सकती है, शेष सारे के सारे झूठ और फरेब के पिटारें के अलावा कुछ नहीं। रोगों का मूल कारण जहां तक ज्ञात किया जा सका है वो ये है—

1. कुबुद्धि
2. अशुद्ध संस्कार
3. दुश्चिन्ता
4. अहं और क्रोध

हम जानते हैं कि दवाइयां विष हैं और इसकी थोड़ी बहुत मात्रा भी जीवनशक्ति का ह्रास करती है। स्वास्थ्य यदि दवाइयो के बल पर बना रहता तो किसी भी डॉक्टर, वैद्य अथवा हकीम के परिवार का कोई सदस्य कभी बीमार नहीं होता। स्वास्थ्य यदि पैसों से खरीदा जाता तो संसार में कोई भी धनवान रोगी नही रहता।

स्वास्थ्य की कुंजी इंजेक्शन, यंत्रो, बड़े-बड़े हॉस्पीटलों और डॉक्टरी डिग्रियो से नहीं मिलती अपितु प्रकृति के नियमों का संयमपूर्वक पालन करने से मिलती है।

मनुष्य शुद्ध व सात्विक आहार, नियमित रहन-सहन, उदार विचार एवं सदाचार पूर्वक रहे तो बीमारी से कोसों दूर रह सकता है एवं सुखी, संतुष्ट तथा प्रसन्नचित्त बना रह सकता है।

प्रकृति के बल-बूते पर जब पशु-पक्षी भी बिना डॉक्टरो और औषधियो के स्वस्थ रह सकते है तो मनुष्य स्वस्थ क्यों नही रह सकता? यदि प्रकृति के नियमो का बराबर पालन किया जाए तो मनुष्य सभी प्रकार के जंजाल से मुक्त हो सकता है।

सर्दी-गर्मी सहन करने की शक्ति, काम एवं क्रोध को नियंत्रण रखने की शक्ति, कठिन परिश्रम करने की शक्ति, स्फूर्ति, सहनशीलता, हंसमुखता, बराबर भूख लगना, पेट साफ रहना एवं गहरी नींद सच्चे स्वास्थ्य के प्रमुख लक्षण हैं।

मनुष्य के शरीर मे 50% से अधिक बीमारियां हीनता, भय और आत्मविकास की कमी के कारण होती हैं। इससे शरीर के हॉरमोन्स गड़बड़ा जाते हैं और प्रकृति की प्रतिरोधात्मक शक्ति धीरे-धीरे नष्ट होने लगती है प्रो स्कीनर न्यूयार्क ने 'साईको

सजेस्टिव थेरेपी'' को विकसित करने पर बल प्रदान किया है। इस चिकित्सा के जरिये रोगी के आत्मविश्वास और दृष्टिकोण मे परिवर्तन लाना है जिससे मनुष्य की अन्तः शक्तियों को जागृत करना होता है। जो रोगी अपना दृष्टिकोण बदलने व आत्म-विकास जगाने मे सफल हो जाते है वे आश्चर्यजनक ढंग से स्वस्थ हो जाते हैं। परिणामस्वरूप उनके सोच-समझ का नजरिया बदल जाता है और जो हीनता के संस्कारों से ऊपर नही उठ पाते वे धीरे-धीरे अपनी जीवन-शक्ति खो बैठते हैं।

अतः मनुष्य जो कुछ बनता है वो अपनी स्वयं की विचार-शक्ति, इच्छा शक्ति, संकल्प-शक्ति और कर्मशक्ति के बल पर ही आगे बढ़ता है।

हालांकि वर्तमान वैज्ञानिक युग में चिकित्सा पद्धतियों मे अभूतपूर्व खोज हुई तथापि आधुनिकतम बीमारियों ने भी मानव को चौंका दिया है। कहने का तात्पर्य यह है कि प्रकृति के विरुद्ध किया गया प्रत्येक कार्य निष्फल हो जाता है।

प्रश्न यह उठता है कि ऐसी कौनसी चिकित्सा पद्धति है जिससे बिना किसी खर्च, बिना प्रतिकूल प्रभाव और प्रकृति के नियमानुकूल रोगी का इलाज किया जा सके।

एक्युप्रेशर चिकित्सा पद्धति ही मात्र ऐसी पद्धति है जिसमे समस्त समस्याओ के निराकरण की अद्भुत क्षमता है क्योकि इसमें बिना दवा के जटिलतम रोग दूर किये जा सकते हैं। इससे स्पष्ट परिलक्षित होता है कि यह पद्धति सबसे सस्ती, सुगम एवं प्रतिकूल प्रभावों से सर्वथा मुक्त है।

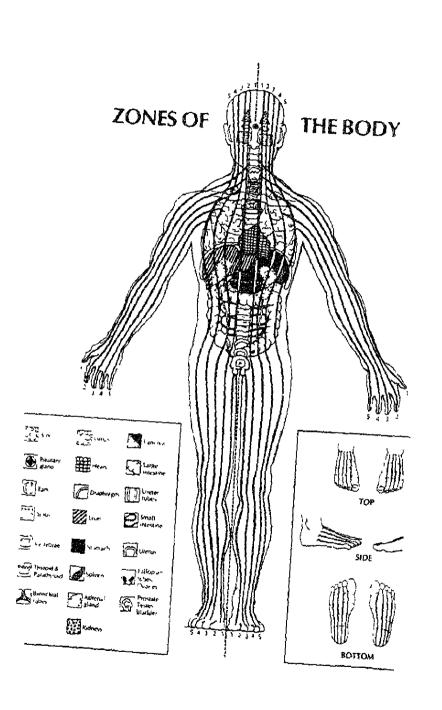
एक्युप्रेशर की शाखाएँ

एक्युप्रेशर थेरेपी की अनेक शाखाएँ है, जैसे कि :—

एक्युप्रेशर

मेरीडीयनोलोजी — जोनोलोजी — शिआत्सु

हेन्ड रिफ्लेक्सोलोजी — फुट रिफ्लेक्सोलोजी — अन्य जैसे कि आई रिफ्लेक्सोलोजी, इयर रिफ्लेक्सोलोजी

ZONES OF
THE BODY
Pituitary gland
Heart
Larger intestine
Ears
Diaphragm
Ureter tubes
Liver
Small intestine
Stomach
Uterus
Thyroid & Parathyroid
Spleen
Bronchial tubes
Adrenal gland
Prostate Testes Bladder
Kidneys
TOP
SIDE
BOTTOM

आकृति 2

मेरीडीयनोलोजी :—

चीन की थ्योरी के अनुसार शरीर में 14 मेरीडीयन है या 14 नदियों का प्रवाह है, जिसे सामान्यतः शक्ति के प्रवाह कह सकते हैं। इस शक्ति के प्रवाहो को चीन में "ची" जापान मे "की" और भारत में आद्यशक्ति के नाम से लोग जानते है। आद्यशक्ति को भारत में अन्य नाम भी दिए गए हैं। जैसे कि ओजस, तेजस, धारक, प्राण, वीर्य, चैतन्य और आत्मशक्ति। इस शक्ति को कोई "बायो इलेक्ट्रो मेग्नेटिक करंट" भी कहते है। इस शक्ति के नेगेटिव और पोजेटिव ऐसे दो गुणधर्म हैं। इन दोनों गुणधर्मों का संतुलन (बिलेसिंग) करना जिसे होमीयोस्टेसिस याने कि शरीर की निरोगी स्थिति कह सकते है। इस संतुलन के अभाव (इम्बेलेन्स) वाली शारीरिक स्थिति को रोगी कहेंगे। संतुलन के अभाव मे कोशों को पहुंचने वाले ज्ञानतंतुओं के अथवा रक्त के प्रवाह में विक्षेप पैदा होने से कोश बीमार पड़ जाते हैं। एक्युप्रेशर असंतुलन को दूर करके रक्त प्रवाह को व्यवस्थित करता है। इस तरह कोशो की स्वास्थ्य वृद्धि होने से संबंधित अवयव कार्यरत होते हैं और रोग दूर हो जाते हैं। इस तरह यह थेरेपी सूक्ष्म कोशों को प्रभावित करके अवयवों को रोग-मुक्त करती है। इसलिए यह अधिक प्रभावशाली है।

शिआत्सु :—

यह पद्धति जापान की है। बहुत पुरानी है। काफी मात्रा में इसका प्रसार हुआ है और सरकार-मान्य है। शिआत्सु मे "शि" यानि उंगलियाँ और "आत्सु" यानि दबाव। शरीर पर निर्धारित दाब बिन्दुओ पर दबाव देकर रोग-मुक्त करने की पद्धति को शिआत्सु कहते हैं। इस पद्धति में दाब बिन्दु सारे शरीर पर फैले हुए हैं। इस थेरेपी की थ्योरी यह है कि जब कोई अवयव बीमार हो तो उस अवयव के क्षेत्र में ही निश्चित दाब बिन्दुओ पर दबाव देने से रोग दूर किए जा सकते है। हमारे चिकित्सा केंद्रों मे इसका उपयोग किया जाता है।

जोनोलोजी और उसमें समाई रिफ्लेक्सोलोजी :—

जोनोलोजी जोन थ्योरी पर आधारित अति महत्वपूर्ण थेरेपी है। इसमें से रिफ्लेक्सोलोजी का जन्म हुआ है। रिफ्लेक्सोलोजी पांव के तलवे मे आए हुए दाब बिन्दुओं द्वारा शरीर के संबंधित अवयवो और ग्रंथियो को रोगमुक्त करने की चिकित्सा पद्धति है। इस थेरेपी का अभ्यास करने का हमारा मुख्य हेतु है। इसलिए इसे विस्तारपूर्वक समझ लेना जरूरी है। पाँव के तलवे के छोटे-छोटे दाब बिन्दु शरीर मे

व्याप्त अंगों पर कैसे असर करते हैं? दोनो के बीच क्या संबंध या संयोजन होगा? यह समझने के लिए तालीमार्थी को प्रथम जोन थीयरी समझ लेना जरूरी है।

जोन व्यवस्था की तुलना यदि करनी हो तो घर में लगे बिजली के तारो के ताने-बाने की व्यवस्था से कर सकते हैं। बिजली के तार में जिस तरह विद्युत प्रवाह बहता है, उसी तरह जोन में रिफ्लेक्स प्रवाह बहता है। यह याद रहे कि ज्ञानतंतुओ के प्रवाह की व्यवस्था और रिफ्लेक्स की व्यवस्था अलग-अलग है।

पाँव के तलवों से अवयवों और ग्रंथियो का संबंध अनेक रिफ्लेक्सीस की काल्पनिक लम्बी रेखाओं से जुड़ा है। हर एक जोन एक-एक उंगली के भीतर आया हुआ है।

जोन थ्योरी के अनुसार शरीर को दस लाइनो अर्थात दस विभिन्न विभागो मे विभक्त किया गया है। यह दस जोन बने (आकृति सं. 1 देखें)। चित्र मे बताए गए अनुसार यह जोन्स शरीर की पूरी लम्बाई में से मस्तिष्क के ऊपर के हिस्से मे से पाँव की उंगलियों तक गुजरते हैं। तालीमार्थी को इस जोन थैरेपी के साथ संलग्न होना है ताकि जोन और उसके साथ जुड़े अवयवों और ग्रंथियो की जानकारी सरलता से और ध्यानपूर्वक समझी जा सके। एक उदाहरण द्वारा समझने की कोशिश करे। मान लो कि हमने एक फ्रूट केक बनाई है। उसमें हमने बादाम, काजू, पिस्ता और चिरोजी डाले हैं (जैसे शरीर में छोटे-छोटे अवयव स्थान बद्ध हुए हैं)। इस केक का आकार मानव के समान बनाया गया है। इस फ्रूट केक मानव को हम 10 भागो में इस तरह विभक्त (आकृति स. 2 के अनुसार) करेगे कि हर एक स्लाइस (टुकड़ा) एक जोन बने। हर एक जोन की वस्तुएँ एक-दूसरे के साथ रिफ्लेक्स के सहारे जुड़ी हुई हैं। एक छोटी उंगली से जोन को समझना आरंभ करे तो यह सारा जोन छोटी उंगली से ऊपर जाकर कान पर से निकल कर खोपड़ी के बाह्य भाग पर होकर सिर के अंतिम छोर तक के भाग को घेर लेता है। इस विभाग के तलवे में आए हुए संबंधित दाब बिन्दु पर उपचार करने से इस जोन में स्थित सारे अवयवों को प्रभावित कर सकते हैं। इसी तरह जोन नं. 1 पर नजर करें तो यह जोन पाँव के अंगूठे से लेकर घुटने की तरफ के विभाग का समावेश करता है, तथा शरीर की मध्य रेखा के आसपास के अवयवो को घेरता हुआ मस्तिष्क के ऊपर के विभाग तक पहुंचता है। इस विभाग के तलवे मे आए हुए संबंधित दाब बिन्दुओं (आगे अध्ययन करेंगे) पर उपचार करने से इस जोन मे स्थित हर एक अवयव को प्रभावित कर सकते है।

शरीर के दस जोन बनाए गए हैं तो इसमें से एक स्थान पर हमें लक्ष्य देना

आवश्यक है और वह है हमारा मस्तिष्क। शरीर के (धड़ के) दस विभाग करे तो हर एक जोन मे शरीर के अलग-अलग अवयव स्थित दिखाई पड़ते हैं। जबकि मस्तिष्क में दसो जोन एकत्रित होते दिखाई देते हैं (आकृति सं. 1)। पाँव के तलवे मे मस्तिष्क का संबंधित विभाग अंगूठा है। अतः पाँव के दोनो अंगूठों मे दसों जोन का समावेश हुआ है यह न भूले।

जोन मे स्थित हमारे शरीर के अवयव पाँव के तलवे मे स्थित दाब बिन्दुओ के साथ किस तरह सबंधित हैं? यह हम किस तरह जान सकते हैं? इस सवाल का जवाब आकृति नं. 1 में देखने से मिल जाता है। जिसमे मानव शरीर के दोनो तरफ पाँव के तलुओं का आकार रखा गया है।

कुदरत का करिश्मा देखें कि जिस तरह मानव शरीर मे ऊपर से नीचे जाते जाते हर एक अवयव स्थानबद्ध हुआ है उसी तरह पाँव के तलुए में उंगलियो के सिरे से लेकर नीचे तक संबंधित रिफ्लेक्स पोइन्टस के स्थान स्थित हैं। जोन में शरीर को विभाजित करते समय जिन अवयवों के पहले जोन मे दो टुकड़े होते हो उन सारे अवयवों के संबंधित रिफ्लेक्स पोइन्टस के स्थान पाँव के दोनो तलवों मे शामिल हुए है। और जो दो भागो मे विभाजित नहीं हैं वे एक ही पाँव के तलवे में शामिल हैं। बाईं तरफ के बाएँ पैर के तलवे मे (जैसे कि हृदय, प्लीहा, सीगमोईड) और दाहिने ओर के दाहिने पाँव के तलवे में (जैसे कि लीवर, गालब्लेडर, ई-वाल्व, एपेण्डिक्स) स्थित है।

पाँव के तलवे मे स्थित अवयवों के संबंधित दाब बिन्दुओं मे क्रिस्टल्स जमा होने से अवरोध पैदा करते हैं (ऊपर एक्युप्रेशर के सिद्धान्त मे बतलाया है)। वहाँ दबाने से दर्द महसूस होता है। उसमें वेदना होती है (इससे इन बिन्दुओं को प्रतिवेदन बिंदु नाम भी दे सकते हैं)। इस प्रकार जोन थेरेपी से यह जान सकते है कि बिंदु किस अवयव से सबंधित है और यह कुदरत की अनमोल देन है। इसका यदि ध्यानपूर्वक अच्छा अभ्यास किया जाय तो हम खुद अपने डॉक्टर बन कर रोग-मुक्त हो सकते हैं और दूसरो को भी रोग-मुक्ति दे सकते हैं। इस प्रकार यदि पूरे तलवे को चिकित्सा देंगे तो पूरे शरीर की चिकित्सा की है ऐसा कह सकते हैं। दाहिना पैर दाहिने शरीर के लिए और बायां पैर बाएँ शरीर के लिए, इस प्रकार सारा शरीर दस जोन में स्थित है। जब एक जोन का कोई भी भाग बिगड़ेगा तो उस जोन मे स्थित अन्य भागो पर भी इसका खराब असर हो सकता है।

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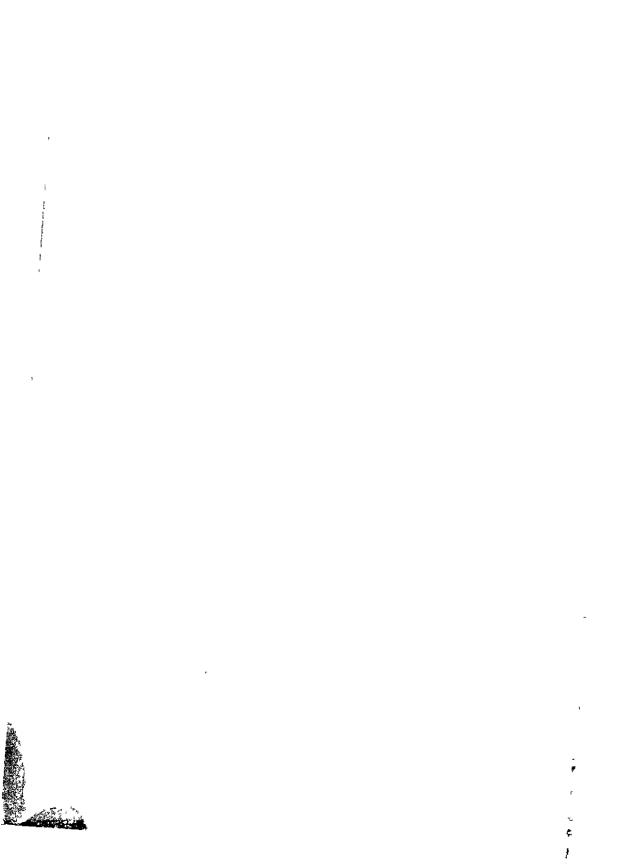

एक्युप्रेशर की पारिभाषिक जानकारी

एक्युप्रेशर मूल रूप से दो शब्दों के मिलाप से (Acu + Pressure) बना है जिसका अर्थ यह है कि Acu = तीक्ष्ण, Pressure = दबाव, यानि निश्चित जगह पर तीक्ष्ण अथवा तेज दबाव देकर चिकित्सा करने की विधि को एक्युप्रेशर चिकित्सा प्रणाली कहते हैं।

कहा जाता है कि यह पद्धति सर्वप्रथम चीन में विकसित हुई थी परन्तु यह किंवदन्ति ही मानी जाएगी क्योंकि भारत में प्राचीन चिकित्सा पद्धतियों में यह भी एक प्रमुख पद्धति रही है जिसके कई प्रत्यक्ष प्रमाण हैं।

इस पद्धति के समकक्ष कई अन्य पद्धतियां भी विकसित हुई हैं परन्तु यह अपने आप में एक परिपूर्ण पद्धति है जिसका किसी अन्य चिकित्सा पद्धति से कोई सरोकार नहीं है।

मानव देह में निरन्तर चेतना रूपी विद्युत प्रवाह बना रहता है। यदि इस प्रभाव में कभी रुकावट अथवा बाधा उत्पन्न होती है तो उस दशा में बीमारी का प्रादुर्भाव होता है। बीमारी की दशा में रोगग्रस्त भाग को दबाने पर दर्द होता है। उसे पुनः सक्रिय करना ही 'एक्युप्रेशर' है।

एक्युप्रेशर एक ऐसी प्राकृतिक उपचार पद्धति है जिसमें बिना किसी यंत्र अथवा मशीन के केवल पीड़ित अथवा रोगग्रस्त अंग की जांच मात्र प्रेशर प्वाइंट द्वारा की जा सकती है एवं उस अंग को कार्यशील एवं रोगमुक्त किया जा सकता है।

हमारी देह के चारों ओर जो वायुमंडल है इसके द्वारा हमारे शरीर की प्राण ऊर्जा संतुलित रहती है एवं यह हमारे चरित्र स्वभाव एवं व्यक्तित्व को आध्यात्मिक

स्तर की अभिव्यक्ति कराता है। सृष्टि का विधान भी दो विपरीत धाराओ के बीच संतुलित है इसी से पृथ्वी पर क्रमशः रात-दिन, सर्दी-गर्मी और जन्म-मृत्यु होते हैं। इसी प्रकार प्राण ऊर्जा के भी संतुलन के दो रूप हैं जिन्हे ऋण (Negative) एवं धन (Positive) बल कहते हैं। जिन मार्गों से शरीर मे प्राण ऊर्जा का प्रवाह होता है उन्हें प्राण ऊर्जा मार्ग एवं इनका स्विच बोर्ड अथवा नियन्त्रण केन्द्र मानव की दोनो हथेलियां, तलुवे हैं।

जैसा कि सनातन धर्म विश्व का सबसे प्राचीन धर्म है उसी प्रकार एक्युप्रेशर का इतिहास भी भारत की ही देन है। इसका प्रमुख आधार गहरी मालिश करना है। प्रसिद्ध प्राचीन भारतीय चिकित्सक 'चरक' के अनुसार दबाव के साथ मालिश करने से रक्त संचरण सही होता है एवं शरीर मे स्फूर्ति एव शक्ति का प्रादुर्भाव होता है। शारीरिक शक्ति विकसित होने पर शरीर में जमा अवांछनीय एवं विषैले पदार्थ मल-मूत्र एवं पसीने के रूप मे शरीर से बाहर निकल जाते है जिससे शरीर स्वस्थ हो जाता है।

चरक संहिता के सूत्र 85-87 मे लिखा है कि किस प्रकार तेल मालिश से शरीर सुदृढ, सुन्दर एवं त्वचा कोमल और चिकनी हो जाती है और शरीर मे व्याप्त रोगो का नाश हो जाता है। शरीर मे कष्ट एवं थकान सहन करने की क्षमता उत्पन्न हो जाती है। अभ्यङ्ग (तेल) त्वचा को कोमल बनाता है, कफ और वायु को रोकता है एवं रसादि सप्त धातुओं को पुष्ट करता है तथा त्वचा की शुद्धि कर बलवर्ण को प्रदान करता है। प्राचीन भारतीय सौन्दर्य प्रसाधनों में उबटन द्वारा तेल मालिश का महत्त्वपूर्ण वर्णन है। विवाह एवं तमाम मांगलिक अवसरो पर आज भी यह प्रथा बरकरार है। नवजात शिशु एवं उसकी मां को उबटन लगाकर लम्बे अंतराल तक मालिश की जाती है।

भारत में स्त्रियां एवं पुरुष आभूषण पहनते हैं तथा स्त्रियां माथे पर बिन्दी लगाती हैं। जनेऊ धारण करने की प्रथा भी प्राचीन काल से चली आ रही है। इन सब का परोक्ष अथवा अपरोक्ष रूप से एक्युप्रेशर से सम्बन्ध है क्योंकि इनमे प्रेशर प्वाइंट पर अपने आप आवश्यकतानुसार दबाव पड़ता है जिसके फलस्वरूप शरीर स्वस्थ रहता है।

प्राचीन एक्युप्रेशर पद्धति के सारांश रूप में कुछ नमूने आज भी निरन्तर उपयोग

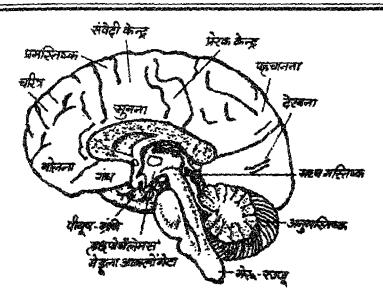
द्वारा ठीक करना, कलाई की मालिश द्वारा गलगंठ को ठीक करना इत्यादि।

एक्युप्रेशर का मूल सिद्धान्त

हमारे शरीर के प्रत्येक अवयव का हथेलियों एवं पैरों के तलवो के बिन्दुओं से खास सम्बन्ध है। हमारा शरीर पंच तत्त्वों से निर्मित है जिसका संचालन शरीर की प्राण ऊर्जा करती है। इसे बायो-इलेक्ट्रिसिटी (Bio-Electricity) कहते हैं। पैरों, हाथों एवं शरीर के विभिन्न भागों पर स्थित केन्द्र बिन्दुओं को दबाने से पीड़ा अथवा दर्द उत्पन्न होता है वहाँ सम्बन्धित अंगों की बिजली लीक 'Leak' करती है जिसके कारण किसी न किसी प्रकार का विकार उत्पन्न हो जाता है। यही विकार उन केन्द्रों पर प्रेशर (दबाव) देने से दूर हो जाता है और प्राण ऊर्जा अथवा शक्तिरूपी बिजली का प्रवाह सामान्य हो जाता है। हाथो-पैरों के कुछ निश्चित बिन्दु शरीर के निश्चित अंगो के प्रतिनिधि हैं इसलिए इन बिन्दुओ पर दबाव का उपचार देकर उसका प्रभाव संबंधित अवयवों पर पहुंचाकर उन अंगो की कार्यक्षमता मे वृद्धि की जा सकती है और उन्हें रोग-मुक्त किया जा सकता है। शरीर के प्रत्येक अवयव के बिन्दु हाथ और पैर में अवस्थित है, फिर भी उपचार के लिए पैर के तलवे को अधिक महत्त्वपूर्ण माना जाता है।

डॉ. फिट्जजेराल्ट के कथनानुसार पैरो के तलवों और हथेलियों में स्थित ज्ञान तन्तु ढंक जाते हैं जिससे शरीर की विद्युत चुम्बकीय शक्ति का भूमि के साथ सम्पर्क नहीं हो पाता। दबाव के उपचार से ज्ञान तन्तुओं के छोर पर हुआ जमाव दूर हो जाता है और शरीर की विद्युत चुम्बकीय तरंगों का पुनः मुक्त संचरण होने लगता है।

डॉ. रॉबर्ट वाकेर के मतानुसार शरीर को दो भागों में विभक्त किया गया है दायां और बायां भाग। जो अंग शरीर के दायें और बायें भाग मे स्थित है, उनके जाँच एवं उपचार के बिन्दु उसी तरफ पाये जाते हैं।

मस्तिष्क एवं इससे सम्बन्धित रोग एवं इनका उपचार
(Brain & Nervous System)

मस्तिष्क की संरचना

आकृति 4

स्तिष्क का सामान्य परिचय :—

मानव मस्तिष्क इस संसार की सबसे सामर्थ्यवान कृति है जो विधाता की अद्
न है।

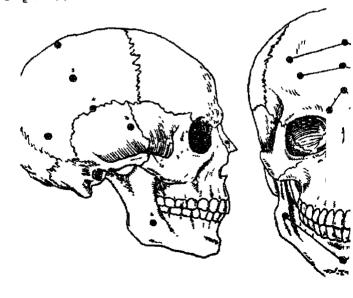
सैकण्ड का समय लगे तो पूरी गिनती करने मे 300 सदियाँ लग

मानव शरीर मे कार्य करने वाली आठ प्रमुख ग्रन्थियाँ जो करती हैं, मस्तिष्क संतुलित रखना उनका मूल आधार है। तथापि कार्य को प्रभु की कृपा मात्र समझकर करता है तो उसका मानसिक बना रहता है।

मस्तिष्क में अनगिनत उल्टे-सीधे विचारों को जन्म देना ही म का श्रीगणेश करना है। जब मस्तिष्क मे अशुद्ध व अपवित्र विचार तो सर्वप्रथम शरीर के हारमोन्स गड़बड़ा जाते हैं जिसका प्रभाव अन् है। यहीं से शरीर में पोषण की कमी होकर रोग की शुरुआत होती असन्तुलन ही रोगो को निमंत्रण देना है।

अतः त्वचारोग, मानसिक विकार, उदर विकार, रक्तचाप, हृदय रोग जैसी घातक बीमारियो से मुक्ति पाने के लिए शरीर को शक्ति हारमोन्स को संतुलित बनाये रखना होगा। मस्तिष्क को मुख्य विभक्त किया गया है—

1. अग्र भाग
2 मध्य भाग
3 पृष्ठ भाग

आकृति 5

मस्तिष्क का प्रत्येक भाग अलग-अलग उपखण्डो में विभक्त है। मस्तिष्क का अग्र भाग सबसे महत्वपूर्ण हिस्सा माना गया है। अग्रभाग की भी दो शाखाएँ है जो— 1. वृहद् एवं 2. प्रमस्तिष्क हैं।

1. **वृहद् भाग :** यह निम्न पिण्डो मे विभक्त होता है।
   - (i) अग्र पिण्ड
   - (ii) पार्श्व पिण्ड
   - (iii) पश्च पिण्ड
   - (iv) गोलाकार पिण्ड

प्रत्येक पिण्ड का कार्य भी अपने हिसाब में निर्धारित है, जैसे—

1. **अग्र पिण्ड :** यह मनुष्य के व्यवहार, शरीर संचालन एवं व्यक्तित्व विकास मे सहायक है।
2. **पार्श्व पिण्ड :** ये मनुष्य के चारों ओर के वातावरण को शरीर के अनुपात में नियत्रित करते है और परिस्थिति के अनुसार शरीर को प्रतिपादित करने मे योगदान देते हैं।
3. **पश्च पिण्ड :** यह मुख्यतः मस्तिष्क के पीछे का हिस्सा है और मस्तिष्क के आंतरिक क्षेत्र एव दृष्टि को संचालित करता है।
4. **गोलाकार पिण्ड :** ये पिण्ड मस्तिष्क के नीचे कनपटियों के पास होते है और मानव शरीर को रसगंध की क्षमताओ का बोध कराते हैं।

मस्तिष्क सम्बन्धी रोग

मस्तिष्क सम्बन्धी रोग मुख्यतः रक्त संचार मे रुकावट, संक्रमण तथा अंगो मे विकार उत्पन्न होने के कारण प्रकट होते हैं। यह स्पष्ट विदित है कि इन रोगों का उपचार एक्युप्रेशर चिकित्सा पद्धति मे निहित है।

मस्तिष्क एवं स्नायु संस्थान से सम्बन्धित उत्पन्न होने वाले प्रमुख रोग—

1. लकवा अथवा पक्षाघात
2. मूर्छा-मिरगी
3. मल्टीपल स्केलेरोसिस (Multiple-Sclerosis)
4 पोलियो

5. मायोपैथी (Myopathy)
6. मस्कुलर डिस्ट्रोफी

1. **"लकवा अथवा पक्षाघात"**— शरीर के तन्तुओं का शिथिल पड़ना अथवा सचालन शक्ति का ह्रास होना लकवा कहलाता है। मस्तिष्क मे रक्त का पूर्ण संचरण न होना एवं रीढ़ की हड्डी मे विकृति के कारण इसका उदय होता है। लकवे का शरीर पर कितना असर होता है यह इस बात पर निर्भर करता है कि शरीर एवं मस्तिष्क का कौनसा भाग कितना प्रभावित हुआ है। मस्तिष्क शरीर को कितना नियंत्रित रखता है यह जानना भी आवश्यक है। वैसे मस्तिष्क का दायां भाग शरीर के बायें हिस्से को एव बाया भाग शरीर के दायें हिस्से को संचालित करता है।

लकवे के प्रकार :—

1 पूर्णांग लकवा
2 अर्द्धांग लकवा
3 एकांश लकवा
4. निम्नांग लकवा
5. स्वरयंत्र का लकवा
6. आवाज का लकवा
7. मुंह का लकवा

पूर्णांग लकवा : यह सम्पूर्ण शरीर को प्रभावित करता है अर्थात् दोनों हाथ एवं पैर निस्प्राण हो जाते हैं।

अर्द्धांग लकवा : इसमें शरीर का आधा हिस्सा चाहे बायां हो अथवा दायां, पूर्ण रूप से प्रभावित होता है एवं सम्बन्धित अंग निश्चेतन अवस्था मे हो जाते हैं।

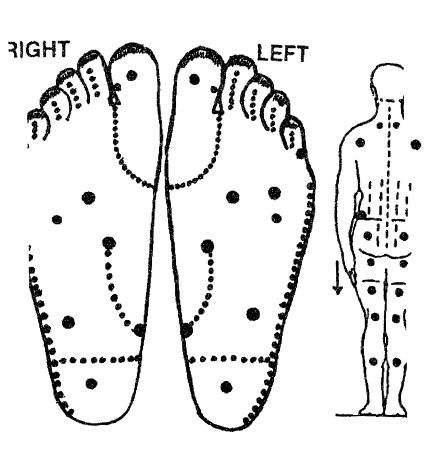
एकांग लकवा : इसमें केवल एक हाथ अथवा एक पैर प्रभावित होता है।

निम्नांग लकवा : इसमे नाभि से नीचे का सम्पूर्ण भाग जैसे जांघें एवं पैर निश्चेतन हो जाते हैं।

स्वरयंत्र का लकवा : इसमें मुख्यतः मनुष्य का बोलना पूर्ण रूप से अथवा आंशिक रूप से बन्द हो जाता है अथवा विकृति आ जाती है।

आवाज का लकवा : इसमे जीभ मे ऐठन आकर जकड़न-सी हो जाती है जिससे बोलने में अत्यधिक तकलीफ होती है

मुंह का लकवा : इसमें मुँह एवं चेहरे में विकृति आ जाती है जैसे मुँह टे
े जाना, आँख का खुला रहना अथवा मुँह एवं आँख से पानी आते रहना आदि

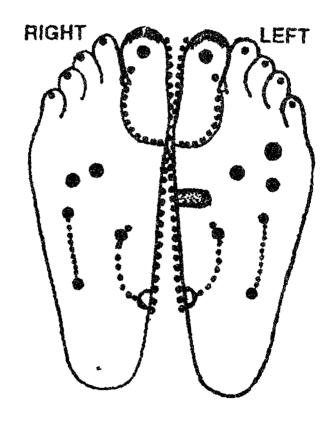
इस रोग में कुल 10 प्रकार के लकवे से प्रभावित होना पाया गया है। एक्युप्रेश
पद्धति में सभी तरह के लकवो का इलाज करना सम्भव है। नीचे चित्र मे दिखाये ग
प्रतिबिम्ब केन्द्रों पर आवश्यक दवाब देकर चिकित्सा करें—

आकृति 6

मूर्छा अथवा मिरगी : शोध विशेषज्ञों द्वारा यह ज्ञात किया गया है कि मिर
कोई रोग नहीं है अपितु किसी जटिल रोग का लक्षण है। मुख्यतः मस्तिष्क मे र
संचरण अथवा तन्तुओ में किसी प्रकार की बाधा आ जाने से मिरगी के दौरे
शुरुआत होती है। डॉक्टरों के कथनानुसार पाचन तंत्र की गड़बड़ी, मद्यपान, सिर

चोट, भयंकर सदमा एवं मानसिक तनाव मिरगी के दौरे के प्रमुख कारण

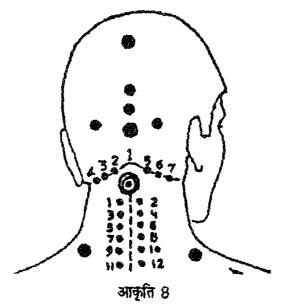
पूर्व में प्रचलित लोक धारणाएँ मिथ्या साबित हुई हैं कि इसमें वि अथवा देवी-देवताओं के प्रकोप से ऐसा होता है।

ऐलोपैथी में पूर्ण रूप से इसका उपचार तो सम्भव नहीं है परन्तु तक रोगी को राहत दी जा सकती है। हलांकि ऐलोपैथी के उपचार के अन्य कई प्रकार के कुप्रभावों का शिकार भी हो जाता है जैसे - आँखा व सुस्ती, गुस्सा आना, निराशा इत्यादि।

आकृति 7

एक्युप्रेशर पद्धति में मिरगी के उपचार की प्रक्रिया :—

इस रोग को स्थायी रूप से दूर करने के लिए स्नायु संस्थान, मस्ति आमाशय के दबाव बिन्दुओं पर दबाव दिया जाना चाहिए।

गर्दन तथा रीढ़ की हड्डी, टखनो पर भी निरन्तर दबाव दिया जाना चाहिए। मिरगी के दौर की स्थिति में नाक और पैरो के नीचे के हिस्सों पर पोइंट देने से इसमें आश्चर्यजनक रूप से फर्क पड़ता है एवं रोगी को आराम मिलता है। नियमित रूप से इन केन्द्रों पर प्रेशर दिये जाने से इसमें स्थायी रूप से लाभ मिल सकता है।

आकृति 8

मिरगी के रोगियों के लिए कुछ ध्यान देने योग्य बातें :—

इस रोग के ग्रसित व्यक्ति को आहार सम्बन्धी विशेष ध्यान देना चाहिए। तले हुए पदार्थ नहीं लेने चाहिएँ। ताजा सब्जियाँ, फल एवं लहसुन का अधिक सेवन करना चाहिए। रोगी को अकेले वाहन नहीं चलाना चाहिए। दिमाग को तनाव-मुक्त रखना चाहिए।

मल्टीपल सक्लेरोसिस :—

इस रोग में कमजोरी, हाथों में कम्पन, याददाश्त में कमी, आंखों में दृष्टि-दोष तथा आवाज में भारीपन आ जाता है। धीरे-धीरे शरीर के प्रमुख अंग निष्क्रिय हो जाते हैं। इसमें शुरुआत में मूत्राशय मे गड़बड़ी होती है तथा पेशाब में रुकावट आती है।

पोलियो :—

यह रोग वैसे तो किसी भी आयु के व्यक्ति को हो सकता है परन्तु विशेषतः

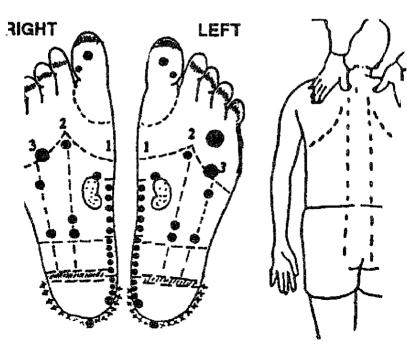
पॉच वर्ष से कम आयु के बच्चों और छः मास से एक वर्ष की आयु वाले बच
अधिक होता है।

इस रोग के मुख्य लक्षण—बुखार, सिरदर्द एवं गले का दर्द मुख्य है। मासपे
मे अत्यधिक दर्द होता है एवं शनैः शनैः ये सूखने लगती है जिससे बालक
चलने-फिरने मे कठिनाई होती है। इसमे परिणामतः बच्चे की एक टांग बहुत
हो जाती है जिससे वह दूसरी टांग से बहुत छोटी एवं पतली नजर आने लगत
इससे सम्बन्धित जोड़ों की हड्डियो मे विकृति आ जाती है।

इसमे बच्चे को जन्म से तीन साल तक अनिवार्य रूप से पोलियो की
देनी चाहिए।

एक्युप्रेशर द्वारा इसकी चिकित्सा :—

इस रोग में सम्बन्धित रोगी को नियमित रूप से पैरो, हाथों एव मस्ति
सम्बन्धित केन्द्रो पर प्रेशर दिया जाना चाहिए। यदि रोग का पता लग जाए तो
ही इन केन्द्रों पर प्रेशर दिया जाए तो रोगी पूर्णतः ठीक हो सकता है।

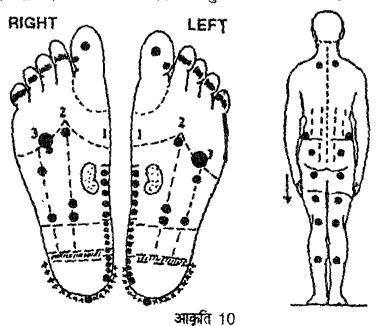
आकृति 9

मायोपैथी (Myopathy)

इस रोग के लक्षणों में प्रमुखतः मांसपेशियों में जकड़न, सूख जाना एवं उनका आश्चर्यजनक रूप से फैलना है। रोगी अत्यधिक कमजोरी महसूस करता है जिससे चलने-फिरने मे कठिनाई होती है।

मस्क्यूलर डिस्ट्रोफी (Muscular Dystrophy)

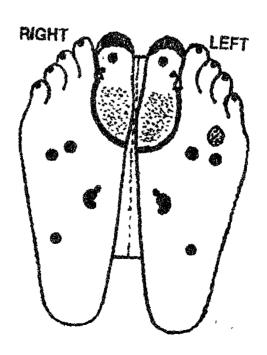
यह रोग विशेषतः लड़कों को होता है। पाँच वर्ष की आयु से इस रोग के लक्षण शुरू हो जाते है। इसमे रोगी की मांसपेशियाँ कमजोर हो जाती है। इसमे बच्चा चलना-फिरना शुरू नही करता तब उसके माता-पिता को इस रोग का पता चलता है। इस रोग मे बच्चा प्रायः देरी से ही चलना-फिरना शुरू करता है एवं उसकी चाल मे विकृति आ जाती है। बच्चे की रीढ़ की हड्डी मे विकृति आ जाने से वह अच्छी तरह से उठ-बैठ भी नही सकता। कई बच्चे बैठने अथवा उठने पर गिर भी जाते है। मांसपेशियों मे कमजोरी आ जाने से वह तेज चलने एवं दौड़ने में असफल रहता है। जैसे-जैसे बच्चे की उम्र बढती है वैसे-वैसे मांसपेशियाँ मोटी और शिथिल हो जाती हैं, उठने-बैठने मे अत्यधिक परेशानी होने लगती है। यहा तक की श्वांस लेने मे भी कठिनाई होती है।

इस रोग का स्थायी इलाज अभी सम्भव तो नही हुआ है परन्तु एक्युप्रेशर पद्धति द्वारा इस रोग को काफी हद तक संतुलित किया जा सकता है।

आकृति 10

मानसिक तथा भावात्मक रोग
(Mental & Emotional Diseases)

मानसिक रोग वस्तुतः कोई रोग नही है अपितु मनुष्य द्वारा अनावश्यक रूप से एकत्रित किये गये विकार और कुण्ठाओं का गुलदस्ता है जो न तो रखने के काबिल होता है और न ही भेट किया जा सकता है।

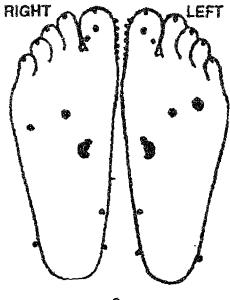
मानव जीवन मे जिन परिस्थितियों का उतार-चढ़ाव होता है जैसे - सुख-दुःख, उतार-चढ़ाव, सफलता-असफलता, लाभ-हानि इत्यादि। इन परिस्थितियों को जो मनुष्य अपनी सामर्थ्य - अनुसार स्वीकार कर लेता है, वह सर्वथा भय एवं तनावमुक्त रहता है, परन्तु जो अपने को इन परिस्थितियों में ढालने को विवश रहता है वह मानसिक रोगो को आमंत्रित करता है।

मानसिक रोग होने के कई अन्य कारण भी हैं, जैसे—कुछ रोग शारीरिक अथवा सामाजिक परिवर्तनो, कमजोरी अथवा नशा करने के फलस्वरूप प्रकट होते हैं। पारिवारिक कलह भी इस रोग का एक प्रमुख कारण है।

आकृति 11

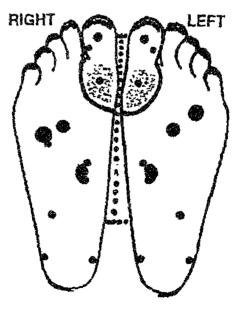
निराशा (Depression) : संसार में हर मनुष्य के जीवन में सांसारिक परिवर्तनों का समावेश रहता है, फलस्वरूप वह जीवन मे कभी न कभी तनावग्रस्त एवं निराश हो ही जाता है। इस रोग मे पारिवारिक, सामाजिक, व्यावसायिक कार्यो मे दिलचस्पी नही रहती एवं मनुष्य हर कार्य को व्यर्थ समझने लगता है।

डॉक्टरों द्वारा यह निष्कर्ष निकाला गया है कि 'डिप्रेशन' मुख्यत थाइरॉयड ग्रन्थि मे विकार उत्पन्न होने, दवाइयों का अधिक सेवन, हारमोन्स के असंतुलित रहने, मधुमेह, पौष्टिक भोजन की कमी के कारण होता है। इस रोग मे शारीरिक शक्ति मे क्षीणता, नीद में कमी, भूख न लगना, कब्ज और सिरदर्द की शिकायत रहती है। स्वभाव में चिड़चिड़ापन आ जाता है। रोगी को अपने आप से घृणा होने लगती है। कुल मिलाकर व्यक्ति अपने आप को बेकार, असहाय एवं निष्क्रिय बना लेता है।

डिप्रेशन का कोई अचूक इलाज नहीं है अपितु इसमें रोगी को सम्पूर्ण सहानुभूति एवं मनोबल देने का प्रयास किया जाना चाहिए। आध्यात्मिक शक्ति द्वारा इस रोग को काफी हद तक दूर किया जा सकता है, जैसे—सत्संग-कथाओं, महात्माओं के प्रवचनो इत्यादि से उसमें नव-प्रेरणा उत्पन्न होगी एवं उसका आन्तरिक शुद्धिकरण होगा।

एक्युप्रेशर द्वारा इस रोग को दूर करने में काफी हद तक सहायता मिलती है।

आकृति 12

बैचेनी (Anxiety) : यह भी एक मानसिक रोग है। इस रोग के निम्न लक्षण पाये गये है, जैसे - व्यक्ति का भयभीत रहना, ठीक प्रकार से नीद न आना, सोचने समझने की क्षमता का अभाव, क्षुब्ध रहना, अजीबोगरीब सपने दिखाई देना, हथेलियो एवं तलुओ मे पसीना आना इत्यादि। इनके अतिरिक्त रोगी ठीक प्रकार से सास लेने मे कठिनाई अनुभव करता है तथा पाचन शक्ति गड़बड़ा जाती है जिसके फलस्वरूप पेट खराब रहता है एवं कभी दस्त शुरू हो जाते है तो कभी कब्ज रहने लगती है। रोगी प्रायः अकेला रहना पसन्द नही करता अपितु किसी के साथ एवं सहानुभूति की आवश्यकता महसूस करता है। यह रोग अधिकाशतः पुरुषों की अपेक्षा स्त्रियो मे अधिक पाया जाता है।

इस रोग में रोगी को आराम करना चाहिए, ईश्वर का मनन अधिक सहायक सिद्ध हुआ है। इसके अतिरिक्त अच्छा सगीत सुनना एवं उच्च-स्तर का साहित्य पढ़ना भी लाभदायक है। एक्युप्रेशर में इस रोग को निर्धारित बिन्दुओ पर कुछ समय तक नियमित 'प्रेशर' देने से इस पर नियंत्रण किया जा सकता है।

आकृति 13

हिस्टीरिया (Hysteria) : यह रोग अधिकांशतः युवावस्था मे स्त्रियो मे पाया जाता है। इस रोग के होने के मुख्य कारण है - इच्छाओं का पूरा न हो पाना, कुण्ठाओ को जन्म देना, वैवाहिक जीवन मे प्रेम की कमी इत्यादि। यह भी देखा गया है कि

अमीरी मे पली, पढ़ी हुई लडकियो को अपेक्षित वातावरण न मिलने से उन्हे अपनी इच्छाओं को दबाना पड़ता है जिसके कारण उन्हें यह रोग लग जाता है।

इस रोग से ग्रस्त स्त्रियो के स्वभाव मे कुछ विलक्षणता पाई जाती है। यदि शुरूआत से देखा जाए तो वे आलसी, मेहनत से जी चुराने वाली, रात को बेवजह जगने वाली, देर से उठने वाली होती है। इनमें दूसरो के बारे मे भ्रमपूर्ण विचार रहते हैं। सिर, पैर, छाती एव कमर मे दर्द रहता है एवं मांसपेशियो मे जकड़न रहती है।

इस रोग के दौरे पड़ने पर रोगी पूर्ण रूप से मूर्छित नही होता, अपितु उसे अपने बारे मे पूर्ण सुध रहती है। वह कुछ न कुछ बड़बड़ाता रहता है।

इस रोग का मुख्य इलाज रोगी की मानसिक कुंठाओ, अतृप्त इच्छाओं को जहाँ तक हो सके पूर्ण करने का प्रयास किया जाना चाहिए एवं शान्त वातावरण मे रखना चाहिए। रोगी को थोड़ा-थोड़ा करके पानी अधिक मात्रा मे पिलाना भी फायदेमंद है।

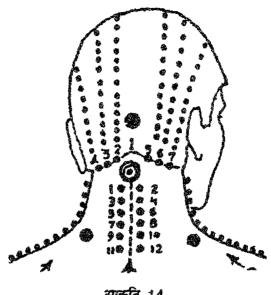
एक्युप्रेशर द्वारा हाथो एवं पैरो की अंगुलियों के आगे के हिस्से मे बिन्दुओं पर कुछ समय तक प्रेशर देने से दौरे में आश्चर्यजनक रूप से फायदा होता है।

अनिद्रा, तेज सर दर्द, माइग्रेन :—

आज के युग मे ये रोग प्रायः हर घर में पाये जाते हैं। इन रोगो का कोई संतोषजनक इलाज नही है वस्तुतः चिकित्सक द्वारा नशा मिश्रित दवा देकर इन रोगों को अस्थायी रूप से दबा दिया जाता है।

अनिद्रा (Insomnia) : स्नायुसंस्थान की गड़बड़ी के कारण इस रोग का प्रादुर्भाव होता है। जिस प्रकार रक्तचाप इत्यादि अपने आप मे कोई रोग न होकर किन्ही अज्ञात बीमारियो के संकेत हैं इसी प्रकार अनिद्रा भी अन्य रोगों का लक्षण है।

इस रोग के प्रमुख कारण : दोषपूर्ण वातावरण में रहना, शारीरिक श्रम की कमी, भारी एवं गरिष्ठ भोजन लेना, तनाव, असतोष, नशा करना, धूम्रपान, चाय, कॉफी का अधिक मात्रा में सेवन, अधिक चिकनाहट वाले खाद्य पदार्थों का सेवन, भोजन के तुरन्त पश्चात सो जाना, अत्यधिक परिश्रम, अधिक क्रोध, उच्च रक्तचाप इत्यादि इस रोग के प्रमुख लक्षण हैं।

एक्युप्रेशर मे इसका अत्यधिक सरल एवं सुव्यवस्थित ढंग से उपचार दिया जा सकता है। इसमे स्नायुसंस्थान एवं पाचनतंत्र से सम्बन्धित केन्द्र बिन्दुओ पर प्रेशर दिया जाता है।

आकृति 14

पैरों तथा हाथों के केन्द्र बिन्दुओं पर दिया गया 'प्रेशर' अधिक कारगर सिद्ध हुआ है। गर्दन के दोनो ओर एवं पीछे भी रीढ़ की हड्डी से दूर ऊपर से नीचे की ओर तीन बार प्रेशर दिया जाना भी लाभप्रद है। इस प्रकार कुछ समय तक नियमित रूप से प्रेशर दिये जाने से स्नायुसंस्थान की गतिविधियों मे परिवर्तन आएगा और रोगी प्राकृतिक रूप से नींद लेना शुरू कर देगा।

तेज सर दर्द (Severe Headache, Migraine) : तेज सरदर्द होने के निम्न कारण हो सकते हैं जिनमें कब्ज, पेट में गड़बड़, गर्दन में विकार, उच्च रक्तचाप, यकृत की खराबी, कान-दांत दर्द, सिर में पुरानी चोट अथवा 'ब्रेन ट्यूमर' के कारण, मौसम मे बदलाव, आँखों की कमजोरी अथवा मानसिक तनाव इत्यादि।

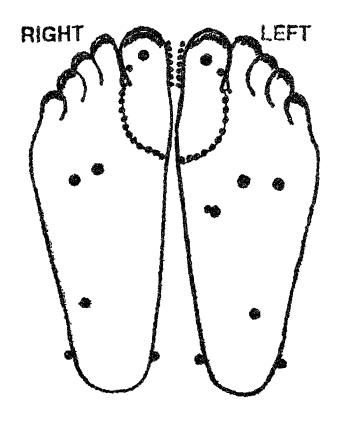
स्त्रियों में इस रोग की प्रमुखता के निम्न कारण हैं, जैसे—गर्भ निरोधक गोलियों का सेवन, अधिक परिश्रम एवं सैक्स सम्बन्धी रोगों के कारण।

इस रोग में रोगी को तीव्र सिर दर्द होता है एवं ऐसा महसूस होने लगता है, जैसे नसें फड़क रही हों अथवा फटने वाली हों। घबराहट महसूस होने लगती है अथवा उल्टी होने लगती है।

एक्युप्रेशर द्वारा चिकित्सा : इस पद्धति में हाथों एवं पैरों के निश्चित केन्द्र बिन्दुओं पर प्रेशर दिया जाता है एवं उन केन्द्रों पर प्रेशर दिया जाता है तो दबाने

से दर्द करते हो

मुख्यतः गर्दन के पीछे की तरफ एवं रीढ़ की हड्डी से दूर दोनो तरफ अंगूठे से प्रेशर दिया जाना चाहिए।

इस रोग मे सबसे अधिक प्रभावी केन्द्र हाथ मे अंगूठे एवं तर्जनी के बीच के स्थान पर दिन मे दो तीन बार दो से पाच मिनट (दर्द की अधिकता के अनुसार) तक हल्का प्रेशर देने से तेज सरदर्द मे शीघ्र राहत मिलती है एवं दर्द दूर हो जाता है।

आकृति 15

सरवाइकल स्पोन्डीलोसिस होने पर आकृति संख्या 15 में दर्शाये प्रतिबिम्ब केन्द्रों पर 5 से 7 रोज लगातार प्रेशर देने से रोग से मुक्ति पायी जा सकती है।

***

अध्याय-2

मुँह एवं गले के विभिन्न रोग एवं उपचार
(Cure of diseases of Mouth & Throat)

1 टॉन्सिल्स (Tonsillitis)
2. गले मे दर्द
3. दांतो मे दर्द
4 मसूड़ों में सूजन
5 गला बार-बार सूखना

1. टॉन्सिल्स :

गले के अन्दर श्वासनली के पास दो ग्रन्थियाँ होती है जो गले के दोनो तरफ स्थित होती है इन्हे टॉन्सिल्स कहते है। वैसे इन ग्रन्थियों का प्रमुख कार्य मुँह अथवा श्वास द्वारा प्रवेश करने वाले रोगाणुओं को खत्म करना एवं रोकना है साथ ही ये श्वेत रक्त कणो का निर्माण भी करते हैं। इस प्रकार से शरीर को रोगो से मुक्त रखने मे महत्वपूर्ण भूमिका निभाते है परन्तु साथ ही रोगाणुओ के संक्रमण की स्थिति मे ये स्वयं रोग-ग्रस्त हो जाते हैं। यदि संक्रमण बराबर जारी रहता है तो ये ग्रन्थियां फूल जाती है एव आकृति मे कठोर हो जाती है। यदि समय पर इनकी तरफ ध्यान नहीं दिया जाए तो इनमें मवाद भी उत्पन्न हो जाती है। यही मवाद धीरे-धीरे फेफड़ो तक पहुंचने लगता है जिससे अन्य कई प्रकार के रोग उत्पन्न हो जाते है।

टॉन्सिल्स मे विकार उत्पन्न होने की दशा मे रोगी को गले में अत्यधिक दर्द, सूजन खाने-पीने में कठिनाई होने लगती है खाँसी एव बुखार जैसे रोगों

को निमत्रण मिल जाता है।

इस रोग मे आवाज मे भारीपन आ जाता है एवं जीभ पर अत्यधिक मैल जमा हो जाता है।

बच्चो में अथवा किशोर उम्र के लोगो में इस रोग की अधिकता पायी जाती है। यह रोग उनमे ठंड लगने के कारण, आइसक्रीम अथवा बर्फ का सेवन करने से, अधिक तली हुई चीजो का उपयोग करने से, बच्चों को ऊपर के दूध पिलाने से हुए विकार के कारण इत्यादि से हो जाता है।

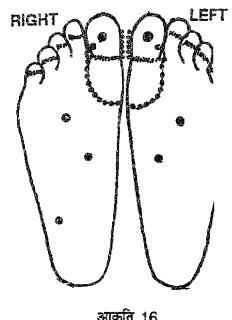
अंग्रेजी दवाइयो द्वारा इनका स्थायी इलाज अभी पूर्ण रूप से सम्भव नही हुआ है। अधिकांश डॉक्टर ऑपरेशन करवाने की सलाह देते हैं जिसमे इन्हें काट कर बाहर निकाल दिया जाता है।

टॉन्सिल्स की तरह ही नाक के अन्दर पीछे के हिस्से मे कुछ मांस के टुकड़े होते है जिससे श्वसन क्रिया मे सहायता मिलती है परन्तु इनके अधिक बढ़ जाने के कारण परिणाम विपरीत मिलने लगता है। क्योकि इनके बढ़ जाने के कारण श्वास मार्ग मे रुकावट हो जाती है जिससे सांस लेने मे कठिनाई आती है जिससे बच्चे नाक की अपेक्षा मुँह से श्वास लेते हैं। मुँह से श्वास लेना वैसे भी दुष्प्रभाव पैदा करता है।

2. गले का दर्द :

गले मे दर्द होने के कई कारण हो सकते हैं। इनमे गले में किसी प्रकार की चोट, घाव, टॉन्सिल्स इत्यादि प्रमुख हैं। जुकाम, ठंड इत्यादि के कारण भी गले मे खराबी आ जाती है।

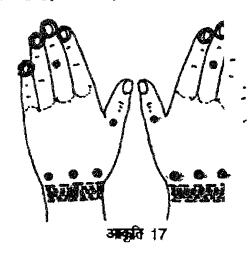
बच्चो में मुख्य रूप से आइसक्रीम, तली हुई चीजें, मीठा इत्यादि खा लेने से गले मे सूजन आ जाती है एवं गले मे गांठे उत्पन्न हो जाती हैं। आयोडीन की कमी से भी गले मे विकार उत्पन्न हो जाते है।

गले मे उत्पन्न बीमारियो को दूर करने के लिए एक्युप्रेशर मे निम्नांकित प्रतिबिम्बित केन्द्रो पर प्रेशर दिया जाता है।

आकृति 16

3. दांत दर्द :

दांतों मे दर्द निम्नांकित कारणों से उत्पन्न होता है, जैसे-मसूड़ों के कटने से, दांत पर चोट लगने से, घाव अथवा पीप

एक्युप्रेशर द्वारा निम्नांकित केन्द्र बिन्दुओ पर प्रेशर आश्चर्यजनक रूप से राहत मिलती है—

आकृति 17

4. मसूड़ों में सूजन अथवा खराबी :

इसमे कान के नीचे, पैरो पर एव हाथो के ऊपरी हिस्से मे, गालो पर दोनों और अंगुलियों से प्रेशर दिया जाना चाहिए।

आकृति 18

5. गले में खुश्की अथवा मुँह का बार-बार सूखना :

इसका मुख्य कारण यकृत की गड़बड़ी है। कब्ज के कारण भी ऐसा हो जाता है। इसमें भी नीचे दिये गये केन्द्र बिन्दु पर प्रेशर देने से आराम मिलता है—

आकृति 19

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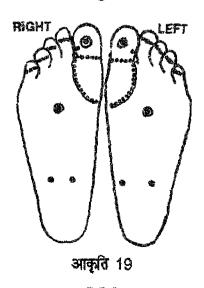
अध्याय-3

रीढ़ की हड्डी, गर्दन, पीठ एवं कंधे के रोग

(Cervical, Shoulder, Back, Leg, Heel & Foot Pains)

ोग के प्रमुख कारण :

अधिक देर तक बैठकर पढ़ना-लिखना, घरेलू कार्य जिसमें गर्दन अथवा कमर झुकाकर किया जाता हो।

.. गठिया रोग, अस्थि रोग, मांसपेशियों इत्यादि में जकड़न।

. आवश्यकतानुसार व्यायाम न करना, खा-पीकर पड़े रहना, पेट में गैस एव कब्ज इत्यादि।

. भोजन में आवश्यक खनिज, विटामिन इत्यादि की कमी।

. सोने, उठने-बैठने में उपयुक्त जगह न होना।

6. पुरानी बीमारियो के कारण, रक्त संचार मे रुकावट, क्षमता से अधिक कार्य करने, जरूरत के मुताबिक आराम न करने एवं नीद न लेने के कारण इन रोगों का आक्रमण शुरू हो जाता है।

गर्दन तथा पीठ दर्द का आपस मे गहरा सम्बन्ध है क्योंकि दोनो ही रीढ़ की ड्डी से जुड़े हैं। इनमे दर्द का आभास प्रायः उस समय होता है जब गर्दन दाये-बाये ुमाने, हाथो को ऊपर-नीचे करते वक्त, नीचे झुकते समय या किसी चीज को उठाते मय दर्द करने लगे। इस रोग मे कभी-कभी भयंकर पीड़ा होती है एवं काटों जैसी भन शुरू हो जाती है जिससे रोगी बेसुध होकर चिल्लाना शुरू कर देता है

रीढ़ की हड्डी का अध्ययन

शरीर का प्रत्येक अंग ज्ञानतंतु द्वारा संचालित होता है और ये ज्ञानतंतु प्रत्यक्ष या अप्रत्यक्ष रूप से रीढ़ की हड्डी से जुड़े है।

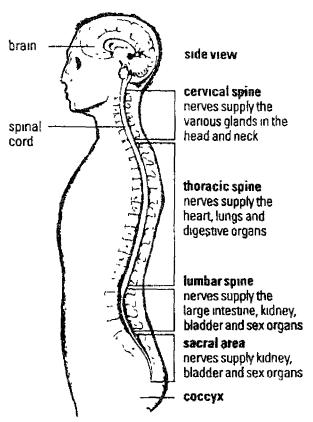
रेखांकित भाग :

(अ) रीढ़ की हड्डी मे मेरुदण्ड व ज्ञानतंतु के नाम

(ब) इन ज्ञानतंतु से प्रभावित क्षेत्र

(क) इन ज्ञानतंतु पर दबाव या अवरोध से उत्पन्न परिस्थितियाँ

THE AUTONOMIC NERVOUS SYSTEM

आकृति 20

(अ) नाम	ब (क्षेत्र)	क (बीमारियाँ)
सर्वाईकल 1	सिर, पिच्यूटरी ग्रन्थि, खोपड़ी, चेहरे की हड्डियाँ, मस्तिष्क, कान का भीतरी तथा मध्य भाग तथा सिम्पेथेटिक नर्व सिस्टम को रक्त भेजना यही से होता है।	सिरदर्द, मानसिक दौर्बल्य, अनिद्रा, सर्दी, उच्च रक्तचाप, माइग्रेन, मानसिक रोग, मूर्च्छा, बच्चो का पक्षाघात, हमेशा थकावट, चक्कर आना आदि।
सर्वाईकल 2	आँखे, चक्षुगोलक, श्रवण, ज्ञाननाड़ी, साइनस, मेस्टोइड हड्डियां, जीभ एवं माथा।	सायनस प्रदाह, एलर्जी, बहरापन, विसर्प, आँखो की बीमारियाँ, कान दर्द, बेहोशी, कुछ प्रकार का अन्धापन।
सर्वाईकल 3	गाल, बाहरी कान, चेहरे की हड्डियां, दांत, त्रिमुखी नाड़ी।	स्नायुशूल, नाड़ी प्रदाह, मुहासे, एक्झिमा (चर्मरोग)
सर्वाईकल 4	नाक, होठ, मुँह, कण्ठनली	नाक बहना, नजला, लाल बुखार, कम सुनाई देना, गले की गिल्टी बढ़ना।
सर्वाईकल 5	स्वरनली, कंठ ग्रन्थियाँ, तालुमूल	तालुमूल प्रदाह, आवाज बिगड़ना, गले मे खराश, कण्ठ प्रदाह।
सर्वाईकल 6	गर्दन की पेशियाँ, कन्धे, टॉन्सिल।	गर्दन की अकड़न, ऊपरी बाजू मे दर्द, तालु मूल प्रदाह, कुकर खाँसी, क्रुप।
सर्वाईकल 7	थाइराइड ग्रन्थि, कन्धे के जोड़, कोहनियाँ।	बरसाइटिस, जुकाम, थाइराइड की स्थिति बदलना, घेंघा।

Nerves supply the heart, lungs and digestive organs

(अ) नाम	ब (क्षेत्र)	क (बीमारियाँ)
थोरेसिक 1	बाजू में कोहनी के नीचे के भाग-हथेली, कलाई, अंगुलियों सहित, श्वास नली, खाने की नली।	दमा, खांसी, श्वास कृच्छ, श्वास कण्ठ, हाथ और कोहनी के नीचे के हिस्से मे दर्द।

हृदय के कपाटों व आवरणों सहित, कोरोनरी धमनियाँ।	हृदय की क्रिया में गड़बड़ी, कुछ विशेष छाती के दर्द।
फेफड़े, ब्रोंकीयल नली, प्लूरा, छाती, वक्ष, निपल।	ब्रोंकायटिस, प्लूरसी, निमोनिया, कफ भर जाना, फ्लू, ग्रिप।
गॉलब्लेडर, कॉमन डक्ट।	गॉलब्लेडर की बीमारियाँ, पीलिया, सिंगल।
यकृत, सोलार प्लेक्सस, रक्त।	लीवर बिगड़ना, बुखार, निम्न रक्तचाप, खून की कमी, रक्तसंचार में गड़बड़ी, जोड़ों का दर्द।
पेट।	पेट की तकलीफें, नर्वस पेट, अपच, छाती में जलन, पेट में वायु संचित होना।
पेंक्रियाज, लिंगरेन का द्वीप, डियुयोडिनम् (छोटी आँत का प्रथम हिस्सा)	मधुमेह, अल्सर, गैस (वायु)।
प्लीहा, झिल्ली।	ल्यूकेमिया, हिचकी।
एड्रीनल।	एलर्जी, उदमेज।
किडनी (गुर्दे)।	किडनी की बीमारियाँ, धमनियों का कठोरपन, हमेशा थकावट, पेशाब की तकलीफें, पाइलिटिस।
किडनी, मूत्रनली।	चमड़ी की बीमारियाँ जैसे मुंहासे, फोड़े, एक्जिमा आदि, जहरबाद।
छोटी आँत, डिम्बनलियाँ, लिम्फ संचार।	जोड़ों का दर्द, वायुशूल (गैस), विशेष प्रकार का बाँझपन।

·ply the large intestine, kidney, bladder and sex organs

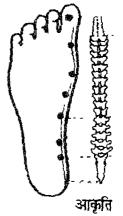
क (क्षेत्र)	ख (बीमारियाँ)
बड़ी आँतें (कॉलन), इंगुनल गोलाई	कब्ज, कोलाइटिस, पेचिश, अतिसार, हर्निया।
एपेन्डिक्स, पेट, जाँघे, सीकम।	एपेन्डिक्स का दर्द, बांइटे, श्वास लेने में कठिनाई, एसिडोसिस, शिराओं का फूलना।

लम्बर 3	प्रजनन ग्रन्थियाँ, डिम्बकोश, पोते, गर्भाशय, मूत्राशय, घुटने।	मूत्राशय की बीमारियाँ, मासि तकलीफ दर्द के साथ, अ गर्भपात, अनिच्छित पेशा, बा दर्द।
लम्बर 4	प्रोस्टेट ग्रन्थि, कमर के नीचे के स्नायु, साइटिक नर्व	साइटिका, कमर दर्द, पेशाब लुम्बागो।
लम्बर 5	टाँगें, अँगूठे, तलवे।	पैरों में कम खूनसचार, टख कमजोर टखने व तलवे, प टागो मे कमजोरी व बाँयटे।
सेक्रम	नितम्ब की हड्डियां, हिप बोन।	कमर और नितम्ब की बीम हड्डियो का मुड़ना।
कोक्सीक्स	मलद्वार, एनस।	बवासीर, मलद्वार की खुजली हड्डी के नीचे दर्द (बैठने पर

Spine : रीढ़ की हड्डी की आकृति

आकृति

वर्तमान युग मे वैज्ञानिक प्रगति के साथ-साथ चिकित्सा क्षेत्र में भी अभूतपूर्व क्रान्ति आई है। जिस प्रकार प्राचीनकाल में बीमारी का पता लगे बिना ही मानव काल-कवलित हो जाता था। अब ये परिस्थितियाँ एकदम परिवर्तित हो गई हैं।

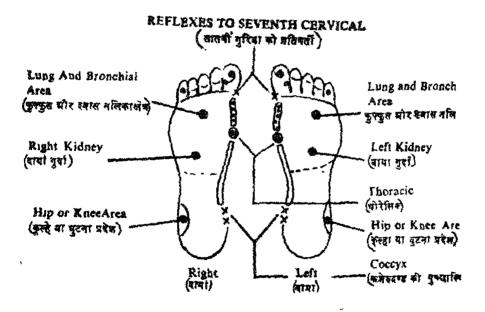
एक्सरे, सोनाग्राफी, केट स्केनिंग इत्यादि से शरीर के किस हिस्से मे कौनसी खराबी है तुरन्त पता लगाया जा सकता है।

रीढ़ की हड्डी मे किस संधिपाद (Joint) मे विकृति है अथव एक्सरे से यह ज्ञात किया जा सकता है। कहने का तात्पर्य यह है कि सही समय पर सही प्रकार से तत्काल चिकित्सा की जा सकती है।

रीढ़ की हड्डी से सम्बन्धित प्रतिबिम्ब केन्द्र :

रीढ की हड्डी, स्पाईनल कोर्ड तथा पीठ की मांसपेशियों के केन्द्र दोनों पैरों में अंगूठे से एडी की तरफ टखने तक होते है।

हाथों में हथेली के ऊपरी हिस्से मे अंगूठे के पास भी प्रतिबिम्ब केन्द्र होते हैं।

हाथों-पैरो तथा रीढ़ की हड्डी मे प्रतिबिम्ब केन्द्र तथा उन पर प्रेशर देने का तरीका इस प्रकार है :—

1. हाथो के बाहरी भाग यानि अंगूठे के पास प्रेशर दे। प्रेशर अंगूठे अथवा गोल पेन्सिल से भी दिया जा सकता है।
2. गर्दन, पीठ, कन्धे तथा अन्य रोगों मे जिन केन्द्रो पर प्रेशर दिया जावे वहाँ यह देख ले कि जिस केन्द्र को दबाने से असहनीय दर्द हो वही केन्द्र रोग से पीड़ित होते है।

आकृति 22

गर्दन से सम्बन्धित रोग एवं उपचार :

रीढ़ की हड्डी का वह भाग जो 'सरवाइकल वरट्रीबा' कहलाता है इसमें किसी प्रकार की विकृति आ जाने से गर्दन, पीठ एवं कन्धे के कई प्रकार के रोग उत्पन्न हो जाते हैं।

इससे सम्बन्धित कुछ प्रमुख रोग इस प्रकार हैं—

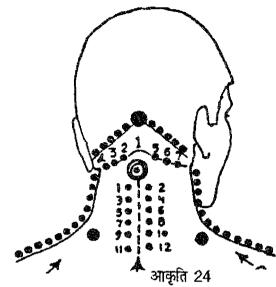
1. सरवाइकल स्पोन्डीलोसिस
2 चक्कर आना
3 गर्दन में ऐंठन
4 कन्धे मे जकड़न, दर्द

1. सरवाइकल स्पोन्डीलोसिस :

आकृति 23

इस रोग मे गर्दन पर कम अथवा तेज दर्द रहता है। उठने-बैठने, लेटने, हाथों को हिलाने, गर्दन को दायें-बायें घुमाने, झुकाने से दर्द होता है। कई बार पीठ में भयंकर पीड़ा होती है अथवा कई बार सम्बन्धित केन्द्रो पर सूजन भी आ जाती है। इसमें दर्द के कारण गर्दन स्थिर भी हो जाती है। कुछ रोगियों को उठते-बैठते, चलते फिरते वक्त चक्कर से आने लगते हैं

2. गर्दन में ऐंठन, कन्धे में दर्द एवं जकड़न :

आकृति 24

इनमे सम्बन्धित स्नायुसंस्थानो मे विकृति, मांसपेशियो में कमजोरी अथवा गलत ढग से उठने-बैठने अथवा अधिक शारीरिक अथवा मानसिक श्रम करने से इन रोगो का उदय होता है।

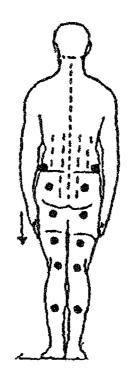
रोग निवारण के उपाय एवं प्रतिबिम्ब केन्द्र :

गर्दन एवं कन्धे से सम्बन्धित सभी प्रतिबिम्ब केन्द्र हाथो एवं पैरो के अंगूठो के बाहरी हिस्सो मे स्थित होते हैं। दाये हाथ एवं पैर के अंगूठे के प्रतिबिम्ब केन्द्र गर्दन एवं कंधे के बाईं तरफ के भाग से सम्बन्धित है एवं हाथ के बाये एवं बाये पैर के अंगूठे के भाग गर्दन के दाये भाग से। अंगूठो का ऊपरी भाग गर्दन के ऊपरी भाग तथा अंगूठो का नीचे का भाग गर्दन के नीचे के हिस्सो से सम्बधित होता है। इससे यह सुनिश्चित है कि गर्दन एवं कन्धे के जिस भाग मे दर्द हो तो हाथो-पैरो के उन्ही सम्बन्धित केन्द्रो पर प्रेशर देना चाहिए।

पैरो के तलवों तथा हथेलियो मे शरीर के विभिन्न भागो जैसे—कन्धो, बाजुओ तथा गर्दन के रोगों से सम्बन्धित प्रतिबिम्ब केन्द्र सबसे छोटी अंगुली से थोड़ा नीचे होते हैं।

प्रायः कन्धे के दर्द एवं लकवे की अवस्था मे इन केन्द्रों पर नियमित प्रेशर देने से आशातीत सफलता मिलती है।

कन्धे की जकड़न, कलाई एवं कुहनी मे दर्द की अवस्था में निम्नानुसार प्रेशर दिया जाना चाहिए।

पीठ, कूल्हे, पैरों एवं एड़ियों का दर्द
उपचार एवं प्रतिबिम्ब केन्द्र

आकृति 25

रोगों के प्रमुख कारण : क्षमता से अधिक वजन उठाने, कूदने, पैर फिसल जाने से इन रोगो की उत्पत्ति होती है। रीढ़ की हड्डी मे स्थित "डिस्क" खिसक जाने से दर्द का आभास होता है एवं जकड़न, ऐंठन सी हो जाती है। उम्र के अनुसार एवं शरीर की बनावट के कारण भी इस पर असर पड़ सकता है। कई बार जोर से खांसने अथवा छीकने पर भी इस प्रकार के रोग हो जाते हैं।

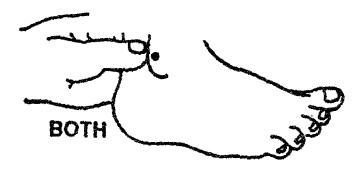
"डिस्क प्रोलैप्स" होने के कारण कई रोगियो के दोनो टांगो में भी असर होता है। इसमे रोगियों के कमर का संतुलन बिगड़ जाता है जिससे एक पैर दूसरे पैर की अपेक्षा कुछ छोटा हो जाता है।

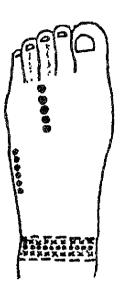
प्रमुख प्रतिबिम्ब केन्द्र

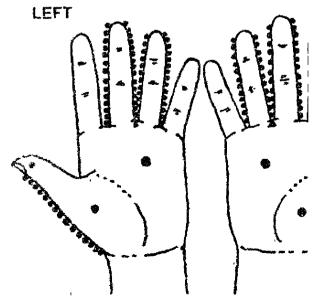
चित्र संख्या 25 के अनुसार पीठ, कूल्हे, टांगों, पैर तथा ऐड़ियो के दर्द एव "डिस्क प्रोलैप्स" होने की स्थिति मे प्रेशर दिया जाना चाहिए। 'प्रेशर' प्रतिदिन , बार दिया जाना चाहिए। इससे इन रोगों में आशातीत राहत मिलती है।

आकृति 26

यदि रोग काफी पुराना हो तो कुछ समय लग सकता है अन्यथा शुरूआत मे ही 'प्रेशर' देने से रोग से शीघ्र मुक्ति मिल सकती है।

घुटनो के पीछे मध्य में तथा पिंडलियों पर प्रेशर देने से शियाटिका, पैरों एवं एड़ियों का दर्द शीघ्र ठीक हो जाता है—

आकृति 27

इसमे रोगी को किसी सख्त स्थान जैसे लकड़ी के पाट अथवा जमीन पर दरी बिछाकर, लिटाकर पीठ पर अंगूठो से प्रेशर दिया जाना चाहिए। यह उपरोक्त चित्र मे स्पष्ट है। प्रेशर दोनों अंगूठों के द्वारा तीन बार करीबन 30 सैकंड के हिसाब से दिया जाना चाहिए। ऐसा प्राय. बारी-बारी से दायें एवं बायें भाग मे प्रेशर दिया जाना चाहिए।

आकृति 2

तलवो की तरह बाहरी टखनो से बिल्कुल नीचे बीच मे
प्रेशर देने से इन रोगो मे एकाएक राहत मिलती है एव ऐसा प्र
बिल्कुल गायब हो गया है। चूंकि यह केन्द्र बहुत नाजुक एव को
प्रेशर हलका एवं सहनशक्ति के अनुसार ही देना चाहिए।

आकृति 29

इसके अतिरिक्त इन रोगो मे पैरो की अगुलियो विशेषकर अंगूठे के पास वाली दो अंगुलियो पर दिया गया प्रेशर विशेष लाभप्रद है। इसमे अगूठे एव अगुलियो के साथ ऊपर से नीचे की ओर मालिश की तरह प्रेशर दिया जाना चाहिए। पीठ के नीचे के हिस्से तथा टागो के दर्द की अवस्था मे प्रेशर देने से भी काफी आराम मिलता है।

सहायक प्रतिबिम्ब केन्द्र

पूर्व मे जो प्रतिबिम्ब केन्द्र बताए गए है वे सब सम्बन्धित अंगो के प्रमुख प्रतिबिम्ब केन्द्र है। इनके अतिरिक्त भी कुछ सहायक प्रतिबिम्ब केन्द्र और है जिन पर भी यदि प्रेशर दिया जाए तो रोगों में तुरन्त आराम मिलता है।

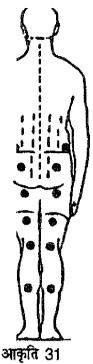
1. दोनों पैरो तथा दोनो हाथो मे गुर्दे से सम्बन्धित केन्द्र है। इन पर प्रेशर देने से पीठ, पैर तथा शियाटिका रोगों मे तुरन्त फायदा होता है।

वैसे भी ये प्रतिबिम्ब केन्द्र शरीर के पांच तत्वो के सूचक है जिनसे शरीर का निर्माण हुआ है—जल, थल, अग्नि, वायु एव आकाश। इन पर किस प्रकार प्रेशर दिया जाए इसलिए चित्र मे देखे।

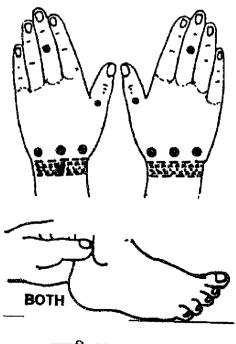
आकृति 30

इसमे नाभि के प्रतिबिम्ब केन्द्र से शुरू कर सभी बिन्दु पर बारी-बारी से प्रेशर दिया जाना चाहिए। प्रत्येक बिन्दु पर तीन सैकण्ड तक प्रेशर दें। प्रेशर तीन चक्र मे दिया जाना चाहिए। प्रेशर दाहिने हाथ की पहली तीन अंगुलियो से बायें हाथ को ऊपर रखकर दिया जाए तो अधिक प्रभावशाली होगा। यह भी ध्यान देने योग्य बात है कि प्रेशर उतना ही दिया जाए जितना रोगी सहन कर सके। प्रेशर खाना खाने से पूर्व एवं खाना खाने के तीन घटे पश्चात् दिया जा सकता है।

शियाटिका के दर्द मे टांग के भीतरी भाग पर बिल्कुल मध्य में थोड़ी-थोड़ी दूरी पर अंगूठे के साथ प्रेशर देने से शीघ्र राहत मिलती है।

आकृति 31

एड़ी के दर्द का इलाज : एड़ी का दर्द प्राय विकृति पैदा होने, चोट लगने अथवा शरीर में वायु की स्थिति मे उत्पन्न होता है। इस रोग मे पीठ एवं टांगो के पीछे, टखनो एवं एड़ी से ऊपर टांगो के नीचे के भाग पर प्रेशर दिया जाना चाहिए।

पिण्डलियों का दर्द : कई बार इस रोग में बैठे-बैठे ही अथवा नीद में पिण्डलियो में एकाएक जकड़न सी होकर दर्द शुरू हो जाता है। ऐसा प्रायः थकान अथवा कमजोरी की अवस्था में होता है। यह दर्द प्रायः कुछ समय पश्चात् स्वतः ही कम हो जाता है। कई महिनो पश्चात् व्यक्ति को पिण्डलियो मे ऐठन हो जाती है। इस रोग में पिण्डली के पीछे तथा टखने के पास प्रेशर दिया जाना चाहिए—

आकृति 32

संक्षिप्त सार : मुख्य रूप से यह कहा जा सकता है कि विभिन्न रोगो के कारण मनुष्य स्वयं ही खड़े करता है। दैनिक काम-काज, अनियमित दिनचर्या, लापरवाही एवं स्वास्थ्य को अनदेखा करना ही रोगों को आमंत्रित करना है।

कुछ प्रमुख कारण ये भी हैं—

1. मोटापा 2. मधुमेह

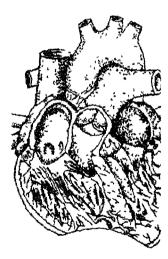
उपरोक्त कारणों से रोगो को शरीर में पनपने मे उपयुक्त वातावरण मिलता है। अतः मनुष्य को चाहिए कि समय रहते इनका उचित निवारण करले। साथ ही इन पर विपरीत प्रभाव डालने वाली क्रियाओं से पूर्ण रूप से परहेज रखे।

***

हृदय एवं रक्त संचार सम्बन्धी रोग एवं उ

(Disorders of the Heart & Blood Circula

हृदय की आकृति एवं उसकी कार्य प्रणाली :

हृदय कोमल, लचीला एवं लाल रंग के थैले के आकार का अंग है। इसके मूल रूप में चार खण्ड है। यह दोनों फेफड़ो के मध्य स्थित रहता है। इसका आकार व्यक्ति की बन्द मुट्ठी के बराबर होता है। सामान्यतः यह पाँच इंच लम्बा, तीन इंच चौड़ा एवं ढाई इंच मोटा होता है। इसका आकार भी स्त्रियो की अपेक्षा पुरुषो में थोड़ा बड़ा होता है। शक्ल में यह आम के आकार का होता है।

आकृति 33

हृदय स्नायु-संस्थान एवं मनुष्य की जिन्दगी का एक महत्वपूर्ण
की निष्क्रियता जिन्दगी का अन्त है एवं इसका सक्रिय रहना जिन्दगी है।

हृदय का प्रमुख कार्य शरीर के रक्त को पम्पिंग द्वारा फेफड़ों तक
एव फेफड़ो द्वारा कार्बन-डाई-आक्साइड दूषित तत्व निकालकर आक्सीजन
रक्त धमनियों के द्वारा पूरे शरीर में पहुंचाना है

हृदय तथा रक्त संचार सम्बन्धी रोग एवं निवारण :

शरीर के अन्य हिस्सो की तरह हृदय के भी विभिन्न रोग हैं। हृदय के रोग मुख्यतः शरीर के ही विभिन्न विकारो से उत्पन्न होते हैं। यह कहना कि हृदय स्वतः ही रोग-ग्रस्त हो जाता है उचित नहीं है। अतः स्नायुसंस्थान की गड़बड़ियों से ही हृदय रोगों का जन्म होता है।

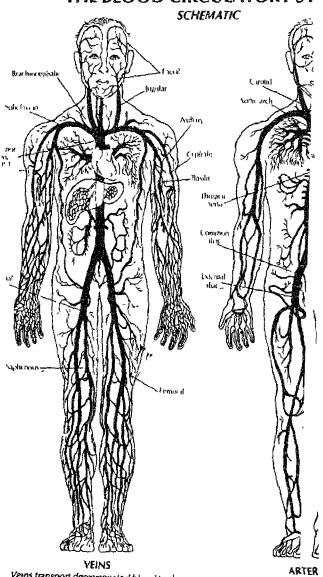
हृदय के प्रमुख रोग :—

1. हाई ब्लड प्रेशर (उच्च रक्तचाप)
2. लो ब्लड प्रेशर (निम्न रक्तचाप)
3. वाल्व सम्बन्धी रोग
4. रक्तवाहिनियों एवं शिराओं सम्बन्धी रोग
5. हृदय की असामान्य आकृति
6. हृदय के चारों ओर दूषित पदार्थ इकठ्ठा होना
7. हृदय की असामान्य धड़कन
8. गति में अवरोध
9. दिल का दौरा इत्यादि।

जैसा कि सर्वविदित है कि मनुष्य की अनियमित दिनचर्या, खान-पान एवं रहन सहन के विकारों के कारण शरीर में बीमारी का प्रादुर्भाव होता है।

यदि मनुष्य दिनचर्या में सुधार करले एवं नियमित व्यायाम, पर्याप्त शारीरिक श्रम एवं संतुलित भोजन का उपयोग करे तो सम्भव है कि वह इन सब व्याधियों से मुक्त हो सकता है। इनके अभाव में वह लगातार मानसिक तनाव से ग्रस्त रहता है, अनिद्रा का शिकार हो जाता है एवं अत्यधिक दवाइयों का सेवन करने लग जाता है जो बीमारियों के आमंत्रण का मूल कारण है।

THE BLOOD CIRCULATORY SY

SCHEMATIC

VEINS

Veins transport deoxygenated blood to the heart and lungs for recirculation

ARTER

Arteries transport oxyg from the heart to all p

आकृति 34

व्र रक्तचाप (हाई ब्लडप्रेशर) :

उच्च रक्तचाप का मतलब है रक्त वाहिनियों के अन्दर रक्त दीवारों पर सामान्य से अधिक दबाव डालना जैसा कि शरी

महत्त्वपूर्ण भूमिका निभाता है उसी के द्वारा रक्त शुद्ध होकर धमनियो द्वारा पूरे शरीर मे संचरण करता है एवं अशुद्ध रक्त को पुनः शुद्ध करके शरीर मे वितरण कर देता है।

रक्त पर हृदय की पम्पिंग का जो दबाव पड़ता है उसे रक्तचाप कहते है। इसमे सामान्य दबाव के अलावा जो दबाव पड़ता है उसे ही रोग कहते हैं। बढ़े हुए दबाव को उच्च रक्तचाप एवं कम दबाव को निम्न रक्तचाप कहते हैं।

उच्च रक्तचाप के लक्षण : जैसा कि कोई भी रोग एकाएक नहीं होता बल्कि उसके पूर्व कई प्रकार के लक्षण दिखाई देने शुरू हो जाते हैं उसी प्रकार उच्च रक्तचाप मे भी पूर्व मे सिरदर्द, चक्कर आना, भारीपन महसूस होना, थकान, चिड़चिड़ापन, अनिद्रा, बदहजमी, बैचेनी, कब्ज, धड़कन तेज हो जाना तथा ऊपर चढ़ते वक्त सास फूल जाना इत्यादि है।

उच्च रक्तचाप का सही एवं समय पर इलाज न किया जाए तो कई रोग हो जाते है, जैसे—हृदयाघात, लकवा, गुर्दे इत्यादि के रोग।

इसे नियंत्रित करने के लिए कुछ खास उपाय इस प्रकार हैं - संतुलित आहार, अधिक नमक, मिर्च, तेल, तेज मसालो का त्याग एव नशीली चीजो इत्यादि पर रोक।

चिंता, शोक, भय, क्रोध इत्यादि का त्याग एवं उन पर नियंत्रण, मधुमेह, मोटापा इत्यादि का विशेष ध्यान रखा जाना चाहिए। महिलाओ में गर्भनिरोधक गोलियो का सेवन भी उक्त बीमारी का कारण है।

उपवास इत्यादि इससे छुटकारा पाने के प्रमुख उपायो में है। कम प्रोटीन का दूध, दही, आलू, टमाटर, गाजर एवं संतरे का जूस नियमित सेवन करने से इस पर नियंत्रण किया जा सकता है। कच्चे प्याज को सलाद के रूप मे खाना भी बहुत लाभप्रद है। इसके अतिरिक्त एक गिलास पानी मे एक चम्मच मेथी भिगोकर सुबह उस पानी को पीने से रक्तचाप नियंत्रिण होता है।

निम्न रक्तचाप (लो ब्लड प्रेशर) :

निम्न रक्तचाप के कई कारण हैं, जैसे—संतुलित आहार की कमी, काफी समय से बीमार रहने, क्षय अथवा हृदय रोग इत्यादि। इसके अतिरिक्त कुछ व्यक्ति जब तक लेटे रहते है तब तक तो ठीक रहते है परन्तु उठते ही उन्हे निम्न रक्तचाप हो जाता है

मुख्यतः पेट में कब्ज, संतुलित आहार की कमी एवं खून की कमी के कारण भी निम्न रक्तचाप हो जाता है। यह भी पाया गया है कि अधिक पसीना आने, बवासीर एवं स्त्रियों के मासिक धर्म मे अधिक रक्तस्राव या गर्भपात के कारण भी यह बीमारी प्रकट हो जाती है। लगातार नींद की गोलियां भी इसको बल देती हैं।

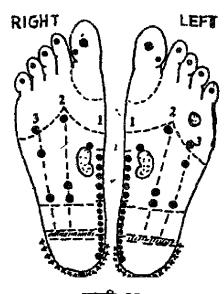
इसके रोगी को प्रायः घबराहट, छाती मे जकड़न, चक्कर आना, थकान, सिरदर्द एवं ठंडा पसीना आने की शिकायत रहती है। इसका तत्काल इलाज होना चाहिए एवं रोगी के शरीर में पानी व नमक की कमी नहीं होने देना चाहिए।

अल्पकालिक हृदय शूल—एंजाइना : यह रोग सीने मे बायी तरफ दर्द के साथ शुरू होकर कई बार हाथों एवं हथेलियों तक पहुंच जाता है। इस रोग के शिकार प्रायः 40 वर्ष से ऊपर के लोग होते हैं। यह रोग प्रायः अधिक शारीरिक, मानसिक श्रम, भय एवं घबराहट, अधिक सर्दी लगने अथवा आवश्यकता से अधिक खा लेने के कारण होता है।

इस रोग में पूर्व में छाती मे जकड़न, श्वास मे परेशानी एवं बैचेनी का अनुभव होता है। तत्पश्चात् दर्द की शुरूआत होती है। अक्सर रोगी यह समझ बैठता है कि उसे दिल का दौरा पड़ गया है।

फिर भी इसका समय पर इलाज किया जाना चाहिए अन्यथा बार-बार के आक्रमण से वास्तव में हृदय रोगों को बुलावा देना है। अक्सर यह रोग उच्च रक्तचाप के कारण होता है। धूम्रपान पूर्णतया त्याग देना चाहिए।

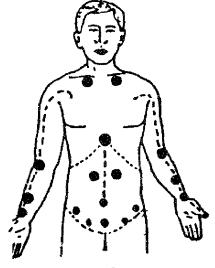
प्रमुख प्रतिबिम्ब केन्द्र—सम्पूर्ण शरीर में हृदय से सम्बन्धित प्रमुख प्रतिबिम्ब केन्द्र बाये हाथ तथा बायें पैर के तलुए में होते हैं। वैसे भी इन अंगों में सभी केन्द्रों पर प्रेशर देने से जिस केन्द्र में अधिक पीड़ा, चुभन इत्यादि हो वह प्रमुख केन्द्र माना जाना चाहिए।

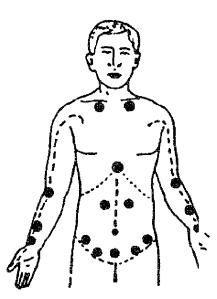
आकृति 35

अन्य प्रतिबिम्ब केन्द्र : ह्दय की समस्त बीमारियो एवं इसे सशक्त बनाने के लिए मूल रूप मे पिट्यूटरी, थायराइड एव पीनियल ग्रंथियो की कार्य-क्षमता को सही रखा जाना चाहिए। इनसे सम्बन्धित प्रतिबिम्ब केन्द्रों पर नियमित प्रेशर दिया जाना चाहिए।

उच्च रक्तचाप से सम्बन्धित प्रेशर बिन्दु

इन केन्द्रों पर अंगूठे से पाँच से सात सैकंड तक तीन बार प्रेशर दिया जा सकता है। उच्च रक्तचाप में गले में ऊपर की तरफ अंगूठे अथवा अंगुलियो से हलका प्रेशर दिन मे दो तीन बार कुछ सैकण्ड तक दिया जाना चाहिए।

कन्धो एवं बाजुओ के ऊपर भी कुछ क्षण तक प्रेशर देने से शीघ्र राहत मिलती है—

कृपया ध्यान रखे कि प्रेशर खाना खाने से पूर्व एवं खाने के दो-तीन घंटे पश्चात् दिया जाना चाहिए।

आकृति 36

आकृति 37

निम्न रक्तचाप के केन्द्र बिन्दु—इसमें चित्र मे दिये गये केन्द्रो पर तीन बार लगातार 5 सैकण्ड तक प्रेशर दे—

ह्दय के वाल्व का प्रतिबिम्ब केन्द्र : इस रोग में बाये एवं दाये हाथ एवं पैर मे प्रतिबिम्ब केन्द्रों पर प्रेशर देने से तुरन्त आराम मिलता है।

Equalize Blood Strain (Pressure) Chai

Period	Systolic	Diastolic
6	93	63
7	93	63
8	94	65
9	94	65
10	99	68
11	100	70
12	100	70
13	101	70
14	106	71
15	106	72
16	108	74
17	111	75
18	112	76
19	113	76
20	117	78
21	118	78
22	119	79
23	119	79
24	119	79
25	120	80
26	120	80
27	120	80
28	121	81
29	121	81
30	122	82

Period	Systolic
31	122
32	123
33	123
34	124
35	124
36	125
37	125
38	126
39	126
40	127
41	127
42	128
43	128
44	128
45	130
46	131
47	131
48	131
49	132
50	133
51	134
52	134
53	136
54	136
55	138

व्यायाम : स्वस्थ शरीर के लिए व्यायाम उतना ही जरूरी है जितन व्यायाम शारीरिक, मानसिक एवं बाहरी बीमारियों से न केवल शरीर की है अपितु शरीर का संतुलन भी बनाए रखता है। वस्तुतः हृदय रोग, उ एवं निम्न रक्तचाप वाले रोगियों को नियमित रूप से सुविधानुसार व्या का भी विशेष ध्यान रखना जरूरी है। उन पदार्थों का सदैव एवं सर्वथा भी जरूरी है जो इन बीमारियों को बढ़ाने में सहायक हैं।

●●●

अध्याय-5

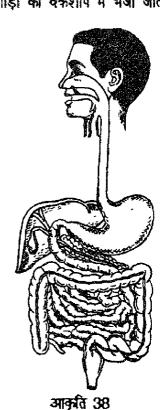
पाचन तंत्र (Digestion)

पाचन तंत्र शरीर में इंजन के रूप में कार्य करता है। जिस प्रकार गाड़ी इंजन सही रूप से कार्य नहीं करने पर गाड़ी को वर्कशॉप मे भेजा जाता है प्रकार पाचन तंत्र गड़बड़ा जाने पर आधुनिक वर्कशॉप यानि हॉस्पीटल इत्यादि मे मनुष्य को दाखिला लेना पड़ता है।

आकृति 38

पाचन तंत्र के प्रमुख भाग :—

1. लीवर-यकृत (Liver)
2. आमाशय (Stomach)
3 आंतें (Intestines)

यकृत Liver : यकृत शरीर की सबसे बड़ी ग्रन्थि है। यह शरीर मे दायी ओर स्थित होता है। इसका वजन स्वस्थ व्यक्ति के शरीर मे लगभग तीन पौण्ड होता है। बाहर से इसका

र लगभग ग्यारह इंच और अन्दर का आठ इंच होता है। मुख्यतः यह "King he Glands" - यानि प्रमुख ग्रन्थि है। शरीर का एक चौथाई रक्त इसी के द्वारा रेत होता है।

त के प्रमुख कार्य :—

यह विभिन्न खनिज, जैसे—कार्बोहाइड्रेट, वसा, प्रोटीन, लोहा एवं प्रमुख विटामिन ए, बी, डी, ई का शरीर के लिए निर्माण करता है। साथ ही शरीर के प्रमुख अंगों में इन्हें पहुंचाता है। 'वसा' द्वारा शरीर को आवश्यक ऊर्जा प्रदान करता है।

पाचन क्रिया द्वारा भोजन से शर्करा को ग्लूकोज तथा माल्टोज जब रक्त द्वारा यकृत मे ले जाया जाता है तो यह इन्हें ग्लाइकोजन (शर्करा) में परिवर्तित कर अपने पास संचित कर लेता है। शरीर की आवश्यकता के अनुरूप समय-समय पर ऊर्जा एवं ग्लूकोज रक्त प्रवाह मे पहुंचाता रहता है जिससे रक्त का स्तर सामान्य बनाए रखने में सहायक होता है।

इसका प्रमुख कार्य पित्त का निर्माण करना भी है। आवश्यकता से अधिक पित्त मलमार्ग द्वारा शरीर से बाहर निकाल देता है। इस प्रकार पित्त जो कि पाचन क्रिया में सहायक है, उसका निर्माण भी करता है एवं अनावश्यक भाग को शरीर में इकट्ठा नही होने देता।

यह रक्त संचरण मे आने वाले हानिकारक तत्त्वो को नष्ट कर लाल रक्त कणो का निर्माण करता है।

यकृत के कुछ प्रमुख रोग : यकृत 'जिगर' के अस्वस्थ होने तथा कार्यप्रणाली ाप आ जाने के कारण कई रोग उत्पन्न हो जाते हैं, जैसे—

पीलिया—जैसा कि यकृत द्वारा पित्त का निर्माण किया जाता है परन्तु अधिक अथवा अनावश्यक पित्त मलमार्ग द्वारा बाहर नही जाकर रक्तवाहिनियों में चला जाता है तो पीलिया हो जाता है।

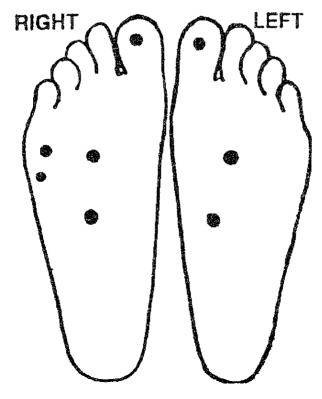
इसकी दूषित कार्यप्रणाली के कारण शरीर मे आलस्य, सिर मे भारीपन, कब्ज, दुर्बलता इत्यादि का आभास होता है। तेज बुखार एवं मांसपेशियो में जकड़न सी रहती है।

अस्वस्थता की स्थिति में इसके आकार मे भी परिवर्तन हो जाता है। मलेरिया अथवा टाइफॉइड में यह सामान्य से अधिक आकार का हो जाता है।

इसके दुष्प्रभाव के कारण रोगी सुस्त तथा चिड़चिड़ा हो जाता है।

5. शराब के अत्यधिक सेवन से यह अधिक विकृत तथा संकुचित हो जाता है फलतः रक्त नलिकाएँ फटने का डर रहता है एवं फटने पर रोगी की मृत्यु भी संभव है।
6. अत्यधिक नशीली दवाइयों के सेवन से भी इसमे सूजन आ जाती है जिमसे उल्टी दस्त हो जाते हैं एवं पीलिया भी हो सकता है।
7 इसकी कमजोरी के कारण पेट का फूलना, स्मरण-शक्ति इत्यादि मे विकार उत्पन्न हो जाते है।

एक्युप्रेशर द्वारा इसके (यकृत) रोगों का उपचार

जैसा कि पूर्व में बताया जा चुका है कि यकृत हमारे शरीर में दायी तरफ स्थित है इसलिए इसके प्रतिबिम्ब केन्द्र भी दाये पैर के तलवे में स्थित होते हैं। इन पर अंगूठे से प्रेशर दिया जाना चाहिए।

आकृति 39

भोजन एवं अन्य ध्यान देने योग्य बातें :

यकृत 'जिगर' के रोगों में चीनी, मैदा, मिठाइयाँ, आलू एवं का सेवन नही करना चाहिए। नीबू, प्याज, अदरक, मौसमी, संतरा इत सेवन करना चाहिए।

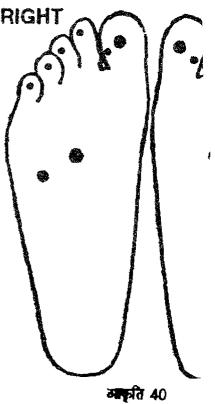
पित्ताशय : पित्ताशय एक प्रकार की थैली होती है जो यकृत स्थित होती है। इसमे यकृत से निकला हुआ पित्त जमा होता रहता पित्ताशय कहते हैं। इसका प्रमुख कार्य पित्त द्वारा भोजन को पचाना

पित्ताशय के रोग : पित्ताशय के प्रमुख रोगों मे 'गालस्टो प्रकार के कठोर आकृति के पत्थरनुमा टुकड़े होते हैं जो शायद कोलेस्ट्रोल से बनते हैं।

'गालस्टोन्स' प्रायः अधेड़ उम्र की औरतों में अधिक पाये जा मे खाना खाते समय और बाद मे अत्यधिक दर्द होता रहता है त बुखार एव उल्टियाँ होने लगती हैं। यह भी माना जाता है कि यह श्रेणी मे आता है।

इससे पित्ताशय मे सूजन एवं छाले भी पड़ जाते है। डॉक्टर प्राय. आपरेशन द्वारा इन्हे निकलवाने की सलाह देते हैं।

एक्युप्रेशर द्वारा निदान : पित्ताशय चूंकि पेट में दायीं ओर स्थित होता है इसलिए इसके प्रतिबिम्ब केन्द्र नी दाये पैर एवं दायें हाथ मे होते हैं। इसमें ..थ-पैर दोनों में समान प्रेशर दिया जाना चाहिए

आकृति 40

पित्ताशय मे 'गालस्टोन्स' के रोगियों के प्रतिबिम्ब केन्द्रो पर प्रेशर देते स अत्यधिक सावधानी की जरूरत है। प्रेशर अंगूठे द्वारा प्रारम्भिक अवस्था मे धीरे दिया जावे तथा तदनुसार थोड़ा अधिक बढ़ाया जा सकता है।

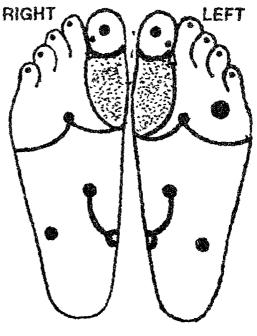
'गालस्टोन्स' मे सतुलित आहार लिया जाना चाहिए तथा अधिक ... चर्बी वाले पदार्थो का त्याग करना चाहिए।

पाचनतंत्र के अन्य रोग :

1. आमाशय के रोग—जैसे अल्सर, पेप्टिक अल्सर
2. आतो के रोग, सूजन इत्यादि
3. अपेडिसाइटिस
4. उल्टी, मल द्वारा खून निकलना
5. पेचिस, दस्त इत्यादि
6. कब्ज, बवासीर, पेटदर्द इत्यादि।

पाचनतत्र के रोगों मे जिस अंग से सम्बन्धित बीमारी है उससे सम्बन्धित के पर प्रेशर दिया जाना चाहिए।

पेट के प्राय· सभी रोगो में चित्र मे बताये गये सभी केन्द्रो पर हाथ की अगुलियो से बारी-बारी तीन बार प्रेशर दिया जाना चाहिए। प्रेशर मुख्यत· खाना खाने के पहले तथा खाना खाने से दो तीन घंटे पश्चात् दिया जाना चाहिए।

अपेंडिसाइटिस : इसमें पीठ पर अंगूठो द्वारा प्रेशर देने से दर्द मे आराम मिलता है।

आकृति 41

पेट के रोगो में संतुलित एवं पाचक आहार का विशेष योगदान
के साथ-साथ एक स्वस्थ व्यक्ति को दिन भर में तीन लीटर पानी अवश
यह भी ध्यान देने योग्य बात है कि जिस चीज को खाने-पीने से पीड़ा
होती हो वह सेवन न करे।

कब्ज, बवासीर : यह आम कहावत है कि कब्ज सौ रोगो की
उत्पन्न होने वाले रोगों मे सिरदर्द, रक्तचाप, गैस, अनिद्रा, गठिया
शुरूआत होती है।

कब्ज की शुरूआत का कारण आतों मे मल का जमा होना है।
श्रम न करने, व्यायाम न करने, आराम की कमी, चिन्ता इत्यादि से ह
गरिष्ठ भोजन, जैसे—अधिक चिकनी चीजें, मैदे से बनी चीजें, भूख
खाते रहने से, भोजन चबाकर अच्छी प्रकार न करने एवं पानी की क

कब्ज दूर करने में भोजन को भली प्रकार चबाकर करना चा
आधा घंटा पूर्व एवं एक घंटे पश्चात् पानी का सेवन करें तथा दिन
तीन लीटर पानी अवश्य पीएँ। हल्का व्यायाम, पर्याप्त विश्राम, नित्य
सब्जियो विशेषकर पत्ती वाली सब्जियो का सेवन करना अत्यधिक ज
मे सलाद का सेवन सोने में सुहागे के समान है। यह भी जरूरी है कि सप्ताह में एक दिन निराहार रहें जिससे पाचन क्रिया का संतुलन बना रहे एव स्वास्थ्य ठीक रहे। नशा, वासना इत्यादि का त्याग कर देना चाहिए।

बवासीर : बवासीर का मुख्य कारण कब्ज ही है। मलद्वार में रुकावट के कारण आंतो मे सूजन उत्पन्न हो जाती है जिससे उनमे पस पड़ जाता है। इसके कारण आंतों से खून का रिसाव शुरू हो जाता है, जो कष्टप्रद एवं स्वास्थ्य गिरने का लक्षण है। एक्युप्रेशर मे चित्र में बताए गए स्थानों पर सवेरे शाम दो बार प्रेशर दिया जाना चाहिए

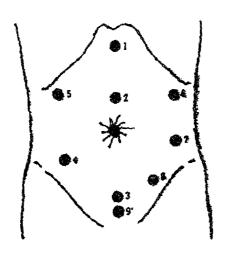
RIGHT

आकृति 42

अन्य पेट सम्बन्धी रोग :

1. **हिचकी :** हिचकी लगातार आने से व्यक्ति परेशान हो जाता है। इसके लिए चित्र मे दिखाये गये प्रतिबिम्ब केन्द्रों पर प्रेशर दिया जाना चाहिए।

आकृति 43

पेच्यूटी, नाभिचक्र के अस्थायी रोग :

आकृति 44

इन रोगों का प्रादुर्भाव प्रायः चलने में असावधानी, अधिक वजन उठाना अथवा कूदने इत्यादि से होता है। कहने को तो ये रोग महज सामयिक हैं परन्तु, इनसे उत्पन्न दर्द एवं परेशानी के कारण रोगी विचलित हो जाता है। इससे जी घबराना, दस्त होना, भूख न लगना एवं पेट मे अत्यधिक दर्द रहता है। वैसे दवाइयों द्वारा इनका इलाज सम्भव नही है परन्तु अनुभवो के आधार पर निम्न क्रियाओं द्वारा इन्हें ठीक किया जा सकता है—

1. प्रातःकाल बिना खाये पीये सीधे लेटकर पैरो के दोनो अंगूठे मिलाएँ। यदि दोनो अंगूठे की लम्बाई में फर्क हो तो यह समझना चाहिए कि नाभिचक्र अपने स्थान पर नही है। इसलिए चित्र मे बताए अनुसार अंगूठे को खीचना चाहिए जिससे वह बराबर की स्थिति में आ जाए—

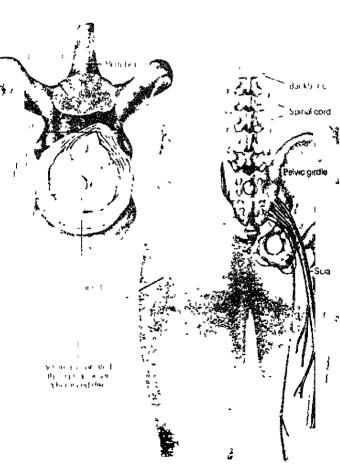
DISORDERS OF THE DIGESTIVE SYSTEM

DISORDER	DESCRIPTION	REFLEX AREAS TO WORK
Appendicitis	Inflammation of the vermiform appendix	Ileocecal, diaphragm
Cholesterol	A sterol widely distributed in animal tissues and occuring in the yolk of eggs, various fats and nerve tissues. It can be synthesized in the liver and is a normal constituent of bile It is the principal constituent of most gall stones	Thyroid, liver
Cirrhosis	A chronic disease of the liver resulting in the loss of functioning liver cells and increased resistance of flow of blood through the liver	Liver, pancreas, all glands.
Colitis	An inflammation of the colon.	Colon, liver, adrenals, lower spine, diaphragm, gall bladder
Constipation	Difficult defecation.	Liver, gall bladder, diaphragm, adrenals, lower spine, sigmoid, ileocecal.
Diabetes	A disorder of the carbohydrate metabolism characterized by hyperglycemia and glycosuria and resulting from inadequate production or utilization of insulin.	Pancreas, liver, all glands
Diarrhea	Frequent passage of watery bowel movements A frequent symptom of gastrointestinal disturbances.	Ascending colon, transverse colon, diaphragm, liver, adrenals
Diverticulitis	Inflammation of a diverticulum (little distended sacs) in the intestinal tract, especially in the colon which causes stagnation of the feces	Colon, diaphragm, adrenals lower spine, liver, gall bladder

Excessive gas in the stomach and intestines	Intestines, stomach, liver, gall bladder, pancreas
Stones formed in the gall bladder or bile ducts	Liver, gall bladder, thyroid
A mass of dilated, tortuous veins in anus and rectum	Diaphragm, adrenals, rectum sigmoid, lower spine, also chronic area up back of heel
The protrusion or projection of an organ or part of an organ through the wall of the cavity which normally contains it	Groin area, colon, adrenals
Protrusion of the stomach upward into the cavity through the esophageal hiatus of the diaphragm	Diaphragm, stomach, adrenal
Spasmodic periodic closing of the glottis following spasmodic lowering of the diaphragm causing a short, sharp inspiratory cough	Diaphragm, stomach
Deficiency of sugar in the blood	Pancreas, liver, all glands
Failure of the digestive function. Symptoms include heartburn, nausea, flatulence and cramps	Liver, gall bladder, stomach intestines, diaphragm
A condition characterized by yellowness of skin due to deposition of bile pigments. It may be caused by obstruction of bile passageways, excess destruction of red blood cells, or disturbances in functioning of liver cells	Liver
Inflammation of a vein	Adrenals, colon, liver; referral area, arm
Self Descriptive.	All toes, middle 1/3 of great toes

***

अध्याय-6

शियाटिका (Sciatica)

शियाटिका नाड़ी हमारी मेरुरज्जु से होकर कूल्हे और टाग के जिस भाग से गुजर कर पांव के टखनो तक पहुंचती है उस भाग में इस नाड़ी से सम्बन्धित जो दर्द उठता है उसे शियाटिका कहते है। यह दर्द अत्यन्त तीव्र एवं असहनीय होता है।

शियाटिका नाड़ी हमारे स्नायुसंस्थान की प्रमुख नाड़ियों मे से एक है। यह पीठ मे रीढ़ की हड्डी मे चौथे और पांचवें लम्बर से निकलती है तथा मेरुरज्जु से होकर नितम्ब एवं कूल्हों को पार करती हुई घुटनो से पहले दो भागो मे विभक्त होकर टांग के पीछे से होती हुई पांव मे टखनों के पास पहुंचती है। यह शरीर की सबसे चौड़ी और लम्बाई मे सबसे लम्बी नाड़ी है। इसकी चौड़ाई लगभग 2 सेंटीमीटर (Quarter Inch) होती है।

मेरुरज्जु (Spinal Cord) शरीर में स्नायुसंस्थान का एक प्रमुख हिस्सा है। यह सिर से निकलकर पीठ के पीछे के हिस्से मे पहले लम्बर तक जाती है। आम व्यक्ति के शरीर में इसकी लम्बाई लगभग 12' लम्बी होती है।

शियाटिका रोग के कारण : इस रोग के होने के प्रमुख कारण हैं—

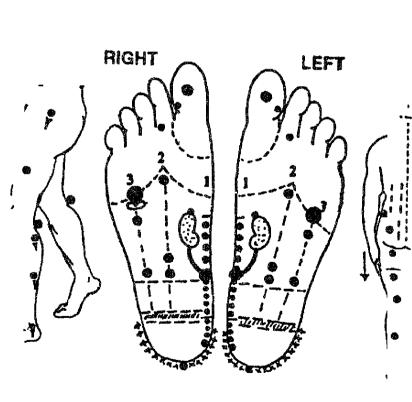
1. रीढ़ की हड्डी में लम्बर भागो में विकृति।
2. लम्बर भागो का अपने स्थान से खिसकना अथवा टेढ़ा-मेढ़ा हो जाना।
3. रीढ़ की हड्डी के पास किसी प्रकार का फोड़ा अथवा ट्यूमर हो जाना।
4 रीढ़ की हड्डी मे किसी प्रकार की सूजन होना।
5. कूल्हे की हड्डी अथवा पेट के निचले हिस्से मे सूजन अथवा मूत्राशय के किसी रोग के कारण।
6 अधिक वजन उठाने अथवा असंतुलित झुकाव के कारण जिससे इस नाड़ी पर प्रभाव पड़ने से इसमें सूजन आ जाती है एवं दर्द शुरू हो जाता है।
7 गुर्दे की खराबी से भी इस रोग की शुरूआत होती है।

रोग के प्रमुख लक्षण : इसमें असहनीय दर्द होता है। रोगी को कांटो के समान चुभन एवं तीव्र दर्द होता है जो पीठ से शुरू होकर पैर तक पहुंचता है। इस रोग मे रोगी के लिए उठना-बैठना, चलना यहाँ तक कि सोने, करवट लेने मे भी अत्यधिक कष्ट होता है। यदि रोगी हिम्मत कर उठने की कोशिश भी करे तो पुनः उस अवस्था में आने के लिए तड़पने लगता है।

यदि रोगी सीधा लेटना चाहे तो लेट नहीं सकता एवं न ही उठ सकता है।

शरीर द्वारा किसी प्रकार की प्रतिक्रिया किया जाना कष्टकर हो जाता है यहाँ त
छीकने अथवा खांसने से भी दर्द तीव्र हो उठता है।

यह रोग कई लोगो को एक बार होता है तो कइयों को कुछ महिनो
कुछ वर्षों मे बार-बार हो जाता है।

एक्युप्रेशर द्वारा रोग निदान : एक्युप्रेशर द्वारा चित्र मे बताये गये प्रति
केन्द्रो पर प्रेशर देने से तुरन्त ही आराम मिलता है। इसके साथ ही यह भी जान
जरूरी है कि शियाटिका दर्द वास्तव में रीढ़ की हड्डी के लम्बर वाले हिस्सों मे f
अथवा चोट से ही शुरू हुआ है।

आकृति 46

तलवे मे जिस स्थान से एड़ी का हिस्सा शुरू होता है उसके आसपास
शियाटिका के प्रतिबिम्ब केन्द्र होते है इन केन्द्रों पर अगूठे द्वारा प्रेशर दिया
चाहिए।

चूंकि एड़ी का यह भाग सख्त होता है इसलिए रबड़ या लकड़ी के किसी उपकरण से भी प्रेशर दिया जा सकता है। यह सर्वविदित है कि जो भाग दबाने से ज्यादा दर्द करे वहाँ इस रोग का प्रतिबिम्ब केन्द्र माना जाता है।

रोगी को जमीन अथवा लकड़ी के तख्ते पर एक तरफ लिटाकर हाथ के अंगूठो के साथ चित्र के अनुसार नीचे की ओर जोर से लगभग आधा मिनट तक तीन बार प्रेशर देने से रोगी को दर्द से एकदम आराम मिलता है।

शीघ्र आराम के लिये प्रतिदिन पांच मिनट वज्रासन करना चाहिये।

अध्याय-7

गुर्दे तथा मूत्राशय सम्बन्धी रोग

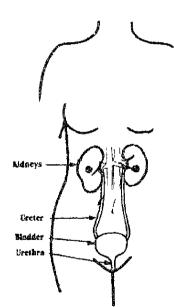
Diseases of the Kidneys & Urinary System

मूत्र विसर्जन से सम्बन्धित अंग—

1. गुर्दे Kidneys
2. गवीनियां Ureters
3. मूत्राशय Urinary Bladder
4. मूत्रनली Urethra

आकृति 47

हमारे शरीर मे दो गुर्दे होते है जो रीढ़ की हड्डी के नीचे दोनों ओर स्थित होते है। दाहिना गुर्दा बायें गुर्दे से अपेक्षाकृत आकृति मे सामान्य रूप से बड़ा एवं झुका होता है। इसका कारण यह है कि हमारे यकृत के बोझ एवं दबाव के कारण दाहिना गुर्दा थोड़ा झुका हुआ होता है।

गुर्दे की लम्बाई सामान्यत 11 सेटीमीटर एव चौड़ाई 6 सेटीमीटर होती है। गुर्दे मे सूक्ष्म नलिकाओ का एक जाल सा होता है जो रक्त साफ करने का कार्य करती है।

शरीर की मशीनरी का यह नियम है कि शरीर मे पुराने पदार्थ निकाल कर उनकी जगह नए पदार्थों का निर्माण करना। जैसे शरीर में कार्बनडाइआक्साइड, यूरिया यूरिक एसिड आदि जो कि शरीर के लिए अनुपयोगी होते है उन्हे शरीर से मूत्राशय

के मार्ग से बाहर निकालना। यदि शरीर द्वारा त्याज्य पदार्थ शरीर में ही बने रहे तो स्वास्थ्य के लिए हानिकारक सिद्ध हो सकते हैं। इन पदार्थों का निर्माण एवं त्याग की क्रिया गुर्दो द्वारा होती है। इसके अतिरिक्त गुर्दे शरीर मे जल के सतुलन को बनाए रखते है तथा हानिकारक पदार्थों को तथा जरूरत से अधिक लवणो को शरीर से बाहर निकाल देते हैं। इससे स्पष्ट परिलक्षित होता है कि गुर्दो का शरीर को स्वस्थ रखने मे कितना महत्वपूर्ण योगदान है। इसलिए गुर्दे जब अस्वस्थ हो जाते है तो शरीर अनेकों गभीर बीमारियो का शिकार हो जाता है।

गुर्दो की इतनी क्षमता है कि इनमे थोड़ी बहुत खराबी होते हुए भी ये शरीर का दैनिक कार्य बखूबी करते रहते हैं। फिर भी यदि एक गुर्दा बिल्कुल काम करना बन्द कर दे तो दूसरा गुर्दा पूरे शरीर का कार्य कर सकता है।

गुर्दे के रोगों के लक्षण : गुर्दे के रोगी की त्वचा का रंग पीला पड जाता है एवं चेहरे पर चिकनाहट स्पष्ट दृष्टिगोचर होती है। शरीर की नस प्राय. फूल जाती है। इस स्थिति को शोथ कहते है जो आखो के नीचे दृष्टिगोचर होता है।

गुर्दे के रोगो मे बार-बार मूत्र आना, अचानक मूत्र निकल जाना अथवा मूत्र मे कष्ट होना या मूत्र के साथ खून आना या अधिक मात्रा मे मूत्र आना आम रोग है।

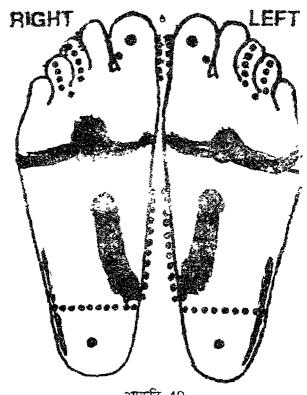
1. गुर्दे की पथरी (Kidney Stones) :

यह रोग मुख्यत. अधेड़ उम्र के व्यक्तियो मे अधिक पाया जाता है क्योकि इस अवस्था मे उनकी विभिन्न शारीरिक कमजोरियों के फलस्वरूप गुर्दे मे विभिन्न प्रकार के ऐसिड, कैल्सियम अथवा अन्य रासायनिक पदार्थो के इकट्ठा होकर जमा हो जाने से वे छोटे-छोटे दानों का रूप ले लेते हैं जिससे मूत्रत्याग मे कष्ट एवं दर्द महसूस होता है।

2. मूत्राशय की पथरी (Urinary Stones) :

इस रोग मे अधिकतर गुर्दो के स्टोन्स यूरेटर के रास्ते से मूत्राशय मे आ जाते है। इस रोग में मूत्र मे पीड़ा, पस, रक्त एवं एलब्युमिन पदार्थ मूत्र के साथ निकलते रहते है।

शर द्वारा उपचार :

मूत्राशय से सम्बन्धित प्रतिबिम्ब केन्द्र दोनो पैरो तथा हाथो मे होत
' तलवों के नीचे एवं एड़ी से थोड़ा ऊपर होते हैं।

आकृति 48

यदि गुर्दे का रोग ज्यादा पुराना हो अथवा अधिक हो तो इन प्रति
ताह मे 2-3 बार प्रेशर देना चाहिए। तदनुसार धीरे-धीरे प्रेशर नि
कता है।

साधारण रोगो मे नियमित रूप से प्रेशर दिया जा सकता है।

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अध्याय-8

मधुमेह (Diabetes)

मधुमेह रोग आधुनिक युग की देन नही अपितु प्राचीन काल मे भी इस रोग की शुरूआत हो चुकी थी। जहॉ तक इसके होने की सभावनाएँ व्यक्त की जाती है यह रोग मात्र वृद्ध, अधेड अथवा जवानो मे ही नहीं अपितु बच्चों मे भी होने की सभावनाएँ होती है। साराश यह है कि यह रोग प्रत्येक उम्र के व्यक्ति को हो सकता है।

रोग के लक्षण : इस रोग से ग्रसित व्यक्ति को प्राय: बार-बार भूख लगती है, बार-बार पेशाब की शका होती है एवं प्यास भी अधिक लगती है। यह क्रिया सामान्य अवस्था से कई गुना बढ़ जाती है। रोगी के वजन मे असामान्य रूप से कमी आ जाती है। साथ ही शारीरिक एव मानसिक दुर्बलता एवं थकावट आ जाती है। मांसपेशियो मे सिकुडन होने लगती है। स्नायुसस्थान मे विकार उत्पन्न हो जाता है। फोड़े-फुसियाँ प्राय. पैरो मे अंगूठे एवं अंगुलियो मे, एड़ियो मे, कुहनियो, कूल्हो तथा मूत्र अंगो के पास होते है।

इस रोग के बढ़ने अथवा अनियंत्रित हो जाने पर कई रोगो की शुरूआत हो जाती है. जैसे—गुर्दों की खराबी, लकवा अथवा अंगो का सुन्न हो जाना, क्षय रोग, दृष्टि रोग, अन्धापन अथवा स्त्रियो में गर्भपात अथवा समय पर प्रसव नही होने की समस्याएँ खड़ी हो जाती है।

यो तो इस रोग के उत्पन्न होने के निश्चित कारणो का पता नही लग सका है परन्तु यह देखने मे आया है कि यह शाकाहारी लोगो मे अधिक पाया जाता है क्योंकि उनके आहार मे वसा एवं कार्बोहाइड्रेट्स की मात्रा अधिक होती है। यह भी प्रचलित है कि इसकी तीव्रता नौजवानो मे अधिक होती है बनिस्पत अधेड़ एवं अधिक आयु के व्यक्तियो के।

मधुमेह के रोगी को चोट आदि लगने पर घाव भरने में काफी समय लगता

है। अत पूर्ण सावधानी बरतनी चाहिये।

रोग के कारण : यह रोग मुख्यतः अपने आप मे विशिष्ट रोग न होकर पाचन तंत्र की गड़बड़ियो के कारण, जो कि इन्सुलिन की कमी के कारण होते हैं, का ही मुखिया है। इसके कारण शरीर मे रक्त ग्लूकोज की मात्रा बढ जाती है एव रक्तवाहिनियों सम्बन्धी रोग भी उत्पन्न हो जाते हैं।

इंसुलिन जो कि शर्करा को ग्रहण करता है एव शरीर में शर्करा की मात्रा का सतुलन बनाये रखता है, मे किन्ही विकारों के कारण इंसुलिन नहीं बन पाता है तो रक्त मे शर्करा की मात्रा बढ़ने से गुर्दो का संतुलन बिगाड़ देती है। फलस्वरूप वह मूत्र के साथ शरीर से बाहर आने लगती है, जिसे हम मधुमेह कह सकते है।

इसके प्रमुख कारणो में पैतृक रोग, मोटापा एवं मानसिक तनाव भी हैं।

मधुमेह के रोगियों के लिए आहार एवं अन्य आवश्यक जानकारी:

1 मधुमेह के रोगी के भोजन पर नियंत्रण रखना चाहिए अर्थात् ऐसे पदार्थों का सर्वथा त्याग कर देना चाहिए जिनसे शरीर मे कार्बोहाइड्रेट की मात्रा बढ़ती है, जैसे—आलू, चावल, आम, केले, चीनी, दूध, दूध की मिठाइयाँ, तली हुई वस्तुएँ, चाय-कॉफी, शराब इत्यादि।

2 मधुमेह के रोगी को नियमित रूप से हल्का व्यायाम करना चाहिए एवं जहाँ तक हो सके सुबह-शाम पैदल घूमना चाहिए।

3 मधुमेह के रोगियों को करेले एवं जामुन पर्याप्त मात्रा मे सेवन करने चाहिएं। करेले का जूस भी थोड़ा-थोड़ा कर के पीया जा सकता है। भिंडी एवं धनिये का सेवन भी बहुत लाभकारी है।

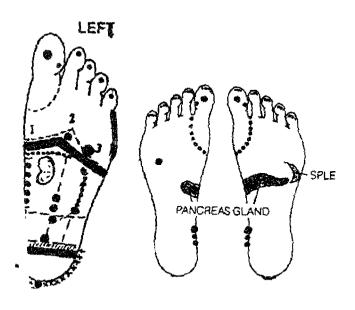
4 तुलसी का प्रयोग रामबाण दवा माना गया है। तुलसी के पत्तो के साथ कालीमिर्च एवं बराबर मात्रा मे नीम के कच्चे पत्ते कूट कर नियमित प्रयोग से इस पर नियत्रण करने में महत्वपूर्ण भूमिका रही है।

5 मेथी के दाने कूटकर उसका चूर्ण बना लिया जाए एवं शाम को एक चम्मच पानी के साथ एवं सुबह शौच आदि से निवृत्त होकर भी एक चम्मच लेने से मधुमेह में आश्चर्यजनक रूप से फायदा होता देखा गया है।

6 मधुमेह के रोगी को जहाँ तक हो सके भरपेट भोजन एक बार मे नही करना चाहिए। भोजन थोड़ा-थोड़ा करके लिया जाना चाहिए। भोजन के साथ पानी नही पीकर कुछ समय पश्चात् पानी पीना चाहिए। यह भी ध्यान रखना चाहिए कि रोगी भूखे पेट न रहे

बैठते एवं सोते वक्त भी सावधानी रखने की जरूरत है। हमेशा
ने एवं उठने की आदत डालनी चाहिए।

धुमेह :

र के जिन अंगों की महत्वपूर्ण भूमिका रहती है, वे है—गुर्दे,
य एवं अग्नाशय। इनकी कार्यक्षमता मे कमी आने से मधुमेह
इसलिए इन से सम्बन्धित प्रतिबिम्ब केन्द्रों पर प्रेशर देने से न
कार्यक्षमता मे वृद्धि होती है अपितु इस रोग को नियंत्रित किया
देखा गया है कि रोगी द्वारा नियमित रूप से आहार, व्यायाम
साथ एक्युप्रेशर चिकित्सा द्वारा प्रेशर लेने से मधुमेह रोग पूर्ण
सकता है।

आकृति 49

यि प्रतिबिम्ब केन्द्रो पर एक माह दबाव देने पर रोग पर पू
सकता है'

How to carry out Diabetes

Diabetes has similar in India in the last twenty years and at this time heeded a greater string to our city residents. Diabetes influence 40 million people in India and has no life span It can effortlessly influence new inherent as it can be able to the greatly old.

What is Diabetes ?

Diabetes is basis of the lack of the hormone Insulin, which is created in the pancreas. Insulin aid to oxidise Glucose in the physique in the pattern to deliver activity With inadequate Insulin, the Glucose collect in the life's blood, bring about the indication of Diabetes. In fit physiques, the aim of quick blood sugar is among 80 - 120 mg dl and the point of post prandial blood sugar (seized 2 hours behind a big dinner) be possible beneathed 120 mg dl. If the life's blood sugar trial, attach to different sign, display a uniform of sugar increased than 200 mg dl, Diabetes is certain

Classification of Diabetes :

Nearly all occurrence of Diabetes are mature to two greater kind, Insulin ancillary Diabetes Mellitus (IDDM) too memorized as Juvenile Diabetes and Non Insulin contingent Diabetes Mellitus (NIDDM) The variance among the couples are forename in the Table below ·

IDDM :

* Almost mutual in adulthood and adolescent maturity.
* Diligent are under heaviness.
* Patients are inclined to repeated sore
* Patients need lifelong Insulin livelihood.
* Complexity like Diabetic insensibility are usual if Insulin is forgotten.
* Explain for 3-7% of Diabetic instances

NIDDM :

* Increased insensibility in subsequent life-span usually behind 40

- Many times equivalent with fatness
- Widespread asymptomatic
- Often genetic.
- Consider nutrition restraint and mouthed drugs at the time required.
- Diabetic insensibility is infrequent
- Accounts concerning 90% of Diabetic cases.

on of Diabetes :

- Density or weight deprivation.
- A sensitive of greatest depletion and infirmity.
- A inclination of frequent sore.
- Extreme desire, eject and liking.
- Confusion of sight.
- Heat and skin sensitive that reject to cure.

s uncertainty for Diabetes :

- If couples are diabetic, the prospect of an single maturing Diabetes are nearly 100%.
- If one relative is Diabetic, the likelihood of the children budding Diabetes are around 50%.
- If a immediate blood family member has Diabetes, the danger of an single incipient the ill is about 25%.
- Fatness and over diet are at once connected to a above uncertainty of growing Diabetes if one single has a inclination as good as the abnormality.
- Deficiency or action the widespread material inactivity along with a element for growing Diabetes.
- Anxiety, distress and tension can accelerate Diabetes in those who have a inherited inclination to the ailment.
- Certain drugs together with those of the cortisone link can enlarge the blood sugar and consequently may tell real Diabetes.

dling along with Diabetes :

There are four comfortable ideals to support when you ɘrstand that you ability be inhentance ınclined somewhat to Dıabetes :

- Dırectıon your nutrition. That is, get rıd of all extra sucrose and restrain the calorie input ın your food.
- Exercıse. Thıs support less blood sucrose and diminish weight Exercıse will along with lower your need of antı diabetes drugs.
- Discıplıne yourself as much as you be capable of conceming the illness. Patıent ıt in detail will support you to gain it extended sensibly.

आकृति 50

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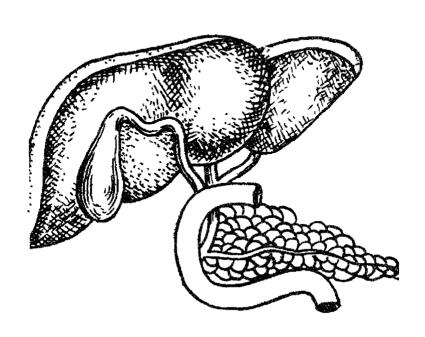
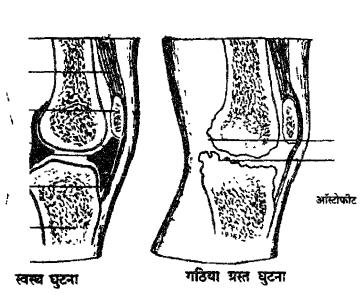

', मांसपेशियों एवं अस्थि सम्बन्धी रोग

'ders of Joints, Bones and Muscles)

मासपेशियो एवं अस्थि सम्बन्धी रोगो मे प्रमुख रोग है :—

या एवं जोड़ो का दर्द (Gout)

धवात (Arthritis)

आकृति 51

गाउट यानी जोड़ों में दर्द व सूजन :—

गाउट का रोग रक्त में यूरिक एसिड की मात्रा निश्चित मात्रा से अधिक होने पर होता है। यूरिक एसिड शरीर में बनने वाला एक व्यर्थ का पदार्थ है, जो साधारणत: मूत्र के साथ शरीर से निकल जाता है, किन्तु कुछ व्यक्तियो मे यूरिक एसिड या तो शरीर से निकल ही नही पाता या अधिक बनने लगता है, जिससे इसकी मात्रा रक्त मे बढ़ जाती है। निश्चित मात्रा से अधिक हो जाने पर यह विभिन्न अंगों के जोड़ो पर क्रिस्टल या कण के रूप मे जमा होने लगता है।

गाउट रोग के लक्षण :—

शुरू में रोगी के जोड़ों में खुजली होने लगती है। जोड़ो के आस-पास की त्वचा का रंग लाल हो जाता है और सूजन प्रतीत होती है। इसके बाद धीरे-धीरे असहनीय दर्द होने लगता है, साथ ही सूजन और बढ़ जाती है। इस रोग का आक्रमण प्रायः पंजो पर पहले होता है। इसके अतिरिक्त कुहनी, अंगुलियो, घुटनो व एड़ियो मे कहीं भी हो सकता है।

गाउट का रोग किसे हो सकता है? :—

30 वर्ष की उम्र के उपरांत किसी को भी (स्त्री या पुरुष) यह रोग पकड़ सकता है। महिलाओं को प्रायः रजोनिवृत्ति के पश्चात् यह रोग अधिक प्रभावित करता है। डॉक्टरो ने देखा है कि साधारण व्यक्तियो की अपेक्षा मननशील व्यक्ति इससे अधिक प्रभावित होते हैं। महिलाओं की अपेक्षा पुरुषो में यह रोग आठ गुणा अधिक होता है।

गाउट के कारण :—

शराब का अत्यधिक सेवन। शराब अधिक पीने से यूरिक एसिड शरीर से बहुत कम मात्रा में निकल पाता है, जिससे रक्त में उसकी मात्रा बढ़ जाती है। कुछ विशेष खाद्य पदार्थों के सेवन से इस रोग के होने की संभावना बढ़ जाती है, जैसे—लाल मांस और कुछ विशेष प्रकार की मछलियों के सेवन से।

कभी-कभी साधारण चोट अथवा ऑपरेशन से भी यह रोग उभर आता है। उच्च रक्तचाप मे दी जाने वाली कुछ दवाइयां भी इस रोग को उत्पन्न करती हैं।

उपचार :—

गाउट का उपचार नॉन स्टिरॉएडल एंटी एफ्लामेटरी ड्रग्स समूह की दवाओं

के लिए कोलचिसिन नामक दवा का उपयोग किया जाता है। गाउट के रोगी के लिए आराम बेहद जरूरी है। बिस्तर पर पूर्ण विश्राम (बैड रैस्ट) के दौरान यदि दर्द बहुत बढ़ जाये तो दर्द वाले स्थान पर कपड़ा लपेट कर बांध दे। रोग के लक्षण यदि लुप्त हो जाये तब भी भविष्य मे उपचार किया जाये या नही, यह निश्चय करने के लिए कुछ बातो पर गौर करना आवश्यक है—

रोगी के रक्त का परीक्षण कराये, जिससे रक्त में यूरिक एसिड के सही स्तर का पता लग सके। गुर्दो में संक्रमण है या नहीं, इसका भी परीक्षण करवाये। शरीर के जोड़ों में पाये जाने वाले तरल पदार्थ की जांच करवायें, जिससे यूरिक एसिड के कणो की उपस्थिति का पता लग सके।

रोगी का रक्तचाप और रक्त मे कॉलेस्ट्राल की मात्रा की जांच करवाये जो कि प्रायः रोगी मे बढ़ जाती है। इससे हृदय रोग की संभावनाए बढ़ जाती हैं। रोगी का वज़न यदि सामान्य से अधिक है, तो धीरे-धीरे उसका वजन कम करवायें, जिससे हृदय रोग से भी बचा जा सके।

रोगी के लिए एस्प्रिन का प्रयोग वर्जित करे, क्योंकि एस्प्रिन शरीर में यूरिक एसिड की मात्रा बढ़ा देती है। गाउट रोग को पूरी तरह रोकने के लिए डॉक्टर की सलाह से दवाई ले। दवाई ऐसी होनी चाहिए जिससे रक्त मे यूरिक एसिड की मात्रा न बढ़ने पाये।

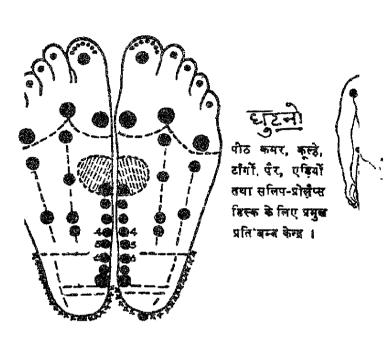
अपनी सहायता स्वयं करें :—

गाउट रोग के रोगी के लिए कुछ महत्वपूर्ण सुझाव, जिनका पालन करके रोगी अपनी सहायता स्वयं कर सकता है :—

यदि आपका डॉक्टर वजन कम करने की सलाह देता है, तो अपना वज़न धीरे-धीरे कम करे। एकाएक वज़न कम करने से या भूखा रहने से रक्त में यूरिक एसिड की मात्रा बढ़ सकती है और गाउट रोग का दौरा पड़ सकता है।

- **अत्यधिक शराब का सेवन न करें।**
- **पेय पदार्थों का अधिकाधिक सेवन करें।**
- **यूरिक एसिड बढ़ाने वाले भोज्य पदार्थों के सेवन से बचें।**

गाउट के रोगी को दिल का दौरा पड़ने की संभावना अधिक रहती है, अतः भोजन में चिकनाई तथा वसा की मात्रा कम से कम ले।

गठिया एवं जोड़ों का दर्द - कारण एवं निराक

आकृति 52

वर्तमान युग में मानव प्राकृतिक एवं नैसर्गिक क्रियाओ से विमुख एवं भौतिक पदार्थो के उपयोग की ओर अग्रसर हो रहा है, परिणामस अप्राकृतिक जीवन-यापन के परिणामस्वरूप अनेक प्रकार की बीमारियो क हो गया है।

आज कृत्रिमता ने मनुष्य को प्रलोभित एवम् गुमराह कर रखा है। जीवन के दुष्परिणाम भी प्रकट हो रहे है। आज सर्वत्र बीमारियो रूपी नासु को जकड़ रखा है। रोगो की सख्याओं मे और उनकी तीव्रता मे वृद्धि नये असाध्य रोगो और विभिन्न बीमारियो से छुटकारा पाने के लिए लोग लाखो रुपये खर्च करते हैं। इस प्रकार खर्चा करने के बाद भी उन्हे आरोग होता है। मनुष्य की रोग प्रतिरोधात्मक क्षमता घटती जा रही है। रोगो से प्रतिरोधात्मक शक्ति निरन्तर कम होती जा रही है। क्योंकि मनुष्य के अ रहन-सहन, रीति-रिवाज एवम् सोच-विचार मे विकृतियाँ आ गई हैं। मानव विमुख होकर कृत्रिम कर रहा है जिसके मानि

एवम् आत्मविश्वास गड़बड़ा गया है। मानसिक तनावयुक्त यंत्रवत् जीते मानव पर सबसे ताजा हमला टी.वी. (दूरदर्शन) का है। कामकाज से फुरसत मिलते ही टी.वी. (बुद्धु बाक्स) के सामने बैठकर जो समय विश्राम, पारिवारिक स्नेह, सामाजिक संबंधो के निर्वाह अथवा शारीरिक स्वच्छता हेतु घूमने, कसरत करने अथवा भगवान के स्मरण मे लगाया जाना चाहिये, उसमे निरंतर कमी आ रही है। युवा पीढ़ी इससे अत्यधिक प्रभावित हो रही है। आने वाले समय में इसके दुष्परिणाम आंखो की ज्योति रेडियोधर्मी प्रदूषण से उत्पन्न विकृतियों के रूप में सामने आयेगी।

प्राकृतिक चिकित्सा का आरोग्य की दृष्टि से महत्त्वपूर्ण स्थान है। यह बिना दवा रोगों को दूर करने की सबसे सरल व प्रभावशाली चिकित्सा पद्धति है। इसका सिद्धांत पूर्णत· प्राकृतिक होने के कारण आज विश्व के कई देशो मे यह लोकप्रिय हो रही है, क्योकि अंग्रेजी दवाइयों से किसी भी रोग पर पूर्णतया सफलता हासिल नही की जा सकती है। इसके साथ अंग्रेजी दवाइयो के दुष्परिणाम विकार उत्पन्न करते हैं। यह पूर्णतः सात्विक व नैसर्गिक पद्धति है। अतः इसका शरीर पर कोई दुष्प्रभाव नही पड़ता है। प्रकृति का यह नियम है कि जो पद्धति जितनी सरल व सुलभ होगी, वह उतनी ही प्रभावशाली होगी।

अब जबकि व्यक्ति अपनी जीवन-शैली को प्रकृति से विमुख कर रहा है, तब उसे अनेक प्रकार की बीमारियो को भी झेलना पड़ रहा है। गठिया एवं जोड़ो का दर्द इसी प्रकार की बीमारी है। इस बीमारी से ग्रस्त व्यक्ति को अनेक परेशानियो को सहन करना पड़ता है। इस बीमारी के होने के जो मुख्य कारण हैं, वे इस प्रकार समझे जा सकते हैं—

1. लंबे समय तक शरीर मे विजातीय द्रव्यो का संग्रह होना।
2. गैस, कैल्शियम, कार्बाइड, यूरिया व अन्य जहरीली दवाइयो से पकाये गये फल एवं सब्जियो का सेवन करना।
3 अप्राकृतिक जीवन-यापन करना व प्रकृति से दूर रहना।
4 गलत समय पर भोजन करना व आहार की गरिमा को बनाये नही रखना।
5 अत्यधिक तनाव से शरीर के हारमोन्स का गडबडा जाना।
6 मांसाहार एव असतुलित भोजन का सेवन करना।
7 शरीर में यूरिक एसिड एव कैल्शियम कार्बाइड का जोडों मे जमाव होना तथा इनका पर्याप्त मात्रा मे विसर्जन नही होना।

8 पैतृक कारण।

9 ईश्वर को भूलना।

मानव का शरीर भगवान का मंदिर है–(विवेकानन्द) : इसी आस्था के कारण शास्त्रों में कहा गया है आत्मा सो परमात्मा अर्थात् शरीर मे निवास करने वाली महान् आत्मा। अब आप इस महान आत्मा अर्थात् भगवान के मंदिर मे किस तरह का भोग लगाना चाहेंगे—सतोगुणी, तमोगुणी, रजोगुणी? विवेक आपके पास है। कब खाना है, स्वास्थ्य के लिये खाना है या स्वाद के लिये खाना है, इसकी महत्त्वपूर्ण जानकारी और विवेक से अगर हमने अन्न ब्रह्म की गरिमा बनाये रखी तो हमारी आत्मा में विराजमान भगवान हमारा स्वास्थ्य और विवेक संतुलित रखेगा। तभी तो हमारे पवित्र ग्रन्थ गीता मे स्पष्ट लिखा है कि—

"युक्ताहार विहारस्थ्य, युक्त चेष्टस्य कर्मसु।—(गीता अ. 6)
युक्त स्वप्नाव बोधस्य, योगो भवति दुखहा।।—(श्लोक-118)

अर्थात् आहार-विहार, खान-पान व कर्म मे समानता होगी तो हम स्वस्थ व निरोगी रह सकेंगे और इसकी गरिमा का पालन नही किया तो हम रोगी बन जायेंगे। प्रकृति का स्पष्ट नियम है कि मानव शरीर एक प्रकृति-दत्त वाहन है। शुद्ध आचार-विचार, पवित्र जीवन, प्रभुस्मरण एवं प्रकृति के नियमों का पालन इसका ईंधन है।

जब कोई व्यक्ति अपने शरीर के गुण, धर्म और क्षमता को बिना जाने आहार-विहार करता है तो उसके शरीर मे अवांछनीय द्रव्य उत्पन्न होकर शरीर मे विजातीय द्रव्यों की मात्रा धीरे-धीरे बढाते रहते है, जिससे शरीर की रोग-प्रतिरोधात्मक शक्ति क्षीण हो जाती है। यह विजातीय द्रव्य धीरे-धीरे जोड़ो मे एकत्रित होते रहते हैं, और जब इनकी मात्रा बढ़ जाती है तो हमारे शरीर के जोड़ पीड़ा करने लगते है। विशेषत. इनका पहला आक्रमण हमारे घुटनों पर होता है। घुटनों एवं जोड़ों के आसपास यूरिक एसिड का धीरे-धीरे जमाव होना आरंभ हो जाता है जिसके कारण चलने-फिरने पर कट-कट की आवाज आती है। उठने एवं बैठने मे असहनीय पीड़ा होती है। जब समय पर इसकी चिकित्सा नही की जाती है तो धीरे-धीरे यह रोग असाध्य बन जाता है। कालान्तर में यह रोग गठिया बनकर सामने आता है। इन रोगा का सबसे दुखदायी पक्ष यह है कि रोग बढ़ने की स्थिति में कई अंगों में विकृतियाँ आ जाती हैं। अस्थिमज्जा (BONE-MAROW) अपना कार्य कम कर देती है। परिणामस्वरूप हड्डियों का बढ़ना व हाथ-पैरों की अंगुलियों का टेढ़ा हो जाना आदि

विकृतियाँ आ जाती है जिससे कई रोगी ना तो आसानी से चल-फिर सकते है व न ही सुगमता से कार्य कर सकते है। संसार मे करोड़ों लोग इस भयंकर रोग से पीड़ित हैं। सम्पूर्ण भारत मे ही दो करोड़ छियानवे लाख लोग इस भयंकर रोग से पीड़ित हैं।

मांस-पेशियों, हड्डियों व जोड़ो से मनुष्य शरीर का ढाचा बना है। मानव शरीर मे कुल 206 हड्डियाँ होती है जिनका रक्तवाहिनियो द्वारा पोषण होता है। इनका पूरे शरीर के साथ चैतन्य सम्पर्क होता है। हड्डियो को कैल्शियम व फास्फोरस तत्व मजबूती प्रदान करते हैं। शरीर को गतिशील रखने के लिए शरीर मे अनेक जोड़ होते है। खोपड़ी की सन्धि को छोड़कर बाकी सब अंगों की संधियां गतिशील होती हैं। अर्थराइटिस (ARTHRITIS) इन्ही संधि वाली हड्डियो से संबधित रोग है। विभिन्न हड्डियो को आपस मे जोड़े रखने का कार्य लिगामेन्ट्स (LEGAMENT) करते है। इसके अतिरिक्त कुछ तरल पदार्थ इन हड्डियों की सतह को लगातार चिकना बनाये रखते है। इसी कारण जोड़ो की गति स्वाभाविक तथा आसान रहती है। गति करते समय उनमें किसी प्रकार की पीड़ा नहीं होती। बहुत से जोड़ो के पास तरल पदार्थ की थैलियॉ होती है। विभिन्न हड्डियों की संधि स्थानों पर गति अलग-अलग होती है। कुछ हड्डियॉ सभी तरफ घूम सकती है तथा कुछ की दाये, बाये व आगे-पीछे घूम सकती है।

इस रोग मे झिल्ली सम्बंधित रक्तवाहिनियो की आकृति सामान्य से चपटी हो जाती है। इन रक्तवाहिनियो को रक्त की सप्लाई पहले से कुछ कम हो जाती है। मानव द्वारा बनाये गये यंत्रो को गतिशील रखने के लिए जिस प्रकार केरोसिन, पैट्रोल तथा बिजली की आवश्यकता होती है, ठीक उसी प्रकार भगवान द्वारा निर्मित मानव शरीर को खून की आवश्यकता होती है। शरीर के हर कल-पुर्जे को सुव्यवस्थित अन्तराल पर समुचित मात्रा में खून मिलता रहना इसकी व्यवस्था है। इस व्यवस्था मे ऊपर बताये गये द्रव्य बाधा पैदा करते है। जब आवश्यक खून सम्पूर्ण शरीर के अगो तक नहीं पहुंचता है तो यह अवरोध उत्पन्न करते हैं। परिणामस्वरूप शरीर मे शिथिलता आ जाती है और धीरे-धीरे व्यक्ति की कार्य-क्षमता घटती रहती है। इस कारण रक्त मे मौजूद प्रोटीन तथा कुछ तरल पदार्थ रक्तवाहिनियों से बहकर जोड़ो के इद-गिर्द जमा हो जाते है जिससे जोड़ो मे सूजन आ जाती है। ये रक्तवाहिनियॉ जब जोड़ो से टकराती है तो असहनीय पीड़ा होती है। जोड़ो के इर्द-गिर्द अवांछित रासायनिक परिवर्तन शुरू हो जाता है। यदि जोडो वाले स्थान पर चोट लगी हो या तन्तुओ मे

अधिक विकार ना हो तो सूजन धीरे-धीरे कम हो जाती है क्योंकि रक्तवाहिनियाँ अपने स्वाभाविक रूप मे आ जाती है। जो तरल पदार्थ आगे-पीछे बिखरा होता है, वह पुन रक्त संचार मे आ जाता है। अगर सूजन काफी अधिक हो और उसके मूल कारण यथापूर्वक बने रहे तो सन्धि रोग पुराना बन जाता है। जिन लोगो के शरीर मे एसिड तथा कैल्शियम तत्व अधिक होते है उनमें भी यह रोग होता है, क्योंकि उनकी शारीरिक शक्ति कम होती है।

अर्थराइटिस के प्रकार—

1. रूमेटाइड अर्थराइटिस (Rheumatoid Arthritis)

इस रोग के कारण मानव की भावात्मक अशान्ति तथा लम्बी चिन्ता आदि से आत्मबल गिरता जाता है। मूलतः झिल्ली की सूजन, रक्तवाहिनियो मे विकृति तथा जोड़ो के आसपास क्रिस्टल्स का जमाव हो जाना इसका मूल कारण है। छोटे-छोटे जीवाणु भी इसका मूल कारण है। यह जीवाणु आरंभ से ही शरीर मे होते हैं, लेकिन जब हमारी आन्तरिक शक्ति क्षीण हो जाती है, तब यह जीवाणु जोड़ो पर अचानक आक्रमण करते हैं। यह रोग जोडों की सूजन तथा विकृति तक ही सीमित नही है। इससे मासपेशियाँ, स्नायु तथा तन्तु भी प्रभावित होने शुरू हो जाते है। अगर इस रोग का ठीक समय पर इलाज नहीं कराया जाये तो यह हृदय तथा फेफड़ों को भी प्रभावित करता है। कई रोगियो को ऐसा आभास होता है जैसे शरीर मे विशेषकर अंगुलियो, घुटनो, पिंडलियों व टखनो के आस-पास सूइयाँ चुभ रही है। कई लोगो के नाखून कमजोर व भुरभुरे हो जाते हैं। रक्तवाहिनियो मे सूजन के कारण प्रायः टांगो व पीठ पर गहरे रंग के धब्बे व फोड़े हो जाते है।

2. अस्थि संधिशोथ (ओस्टीओर्थराईटिस) (Osteoarthritis)

यह रोग जोड़ों का चिरकालिक शारीरिक क्षीणता का रोग है। कई वर्षो तक यह व्याधियाँ बनी रहती हैं तो यह रोग धीरे-धीरे असाध्य बन जाता है। इस रोग मे एक या एक से अधिक जोड़ो मे पीड़ा, जकड़न तथा कड़कड़ाहट की आवाज सुनाई देती है। प्राय· चलने-फिरने या शारीरिक श्रम के पश्चात् जोड़ो मे पीड़ा और अधिक बढ़ जाती है। प्रात उठते समय जोड़ों मे काफी जकड़न प्रतीत होती है, लेकिन धीरे-धीरे रोगी गति करता है, तो यह पीडा कम होती रहती है। इस रोग का सबसे दुखद पहलू यह है कि कभी-कभी घुटनो के आस-पास व कभी पूरे पाव मे सूजन आ जाती है। विशेषत इस रोग में वे अंग अधिक प्रभावित होते हैं जिन पर पूरे

शरीर का बोझ पड़ता है, अर्थात् रीढ़ की हड्डी, घुटने व कूल्हे आदि। समस्त जोड़ जहाँ से रोगी हरकत करता है, वे धीरे-धीरे सख्त होने लगते है। जब दोनो सिरे मिलते है तो असहनीय पीड़ा होती है। माता से यह रोग लड़की तक पहुंच जाता है, लेकिन लड़का प्रभावित नही होता। यह रोग केवल जोडो का ही है। रूमेटाइड अर्थराइटिस के रोगी को ना तो ज्वर आता है और ना ही भूख कम लगती है।

अतः अगर रोगी को इस रोग से मुक्ति पानी है तो प्रकृति के इस नियम को समझना होगा। चूकि मानव शरीर 7 रंगो का पिण्ड है, सूर्य की रश्मियो में भी सातो ही रंग हैं और हमारे शरीर के रक्ताणु एवं श्वेताणु का सूर्य-रश्मियो से सीधा सम्बन्ध है। इसलिये प्रकृति ने सात रंग के फल प्रदान किये हैं। अगर इन सातों रंगो का सामजस्य स्वास्थ्य के लिये तरीके से उपयोग लिया जाये तो इस रोग से मुक्ति पाई जा सकती है।

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अधिक विकार ना हो तो सूजन धीरे-धीरे कम हो जाती है क्योंकि रक्तवाहिनियाँ अपने स्वाभाविक रूप मे आ जाती हैं। जो तरल पदार्थ आगे-पीछे बिखरा होता है, वह पुन रक्त सचार में आ जाता है। अगर सूजन काफी अधिक हो और उसके मूल कारण यथापूर्वक बने रहें तो सन्धि रोग पुराना बन जाता है। जिन लोगो के शरीर मे एसिड तथा कैल्शियम तत्व अधिक होते हैं उनमें भी यह रोग होता है, क्योंकि उनकी शारीरिक शक्ति कम होती है।

अर्थराइटिस के प्रकार—

1. रूमेटाइड अर्थराइटिस (Rheumatoid Arthritis)

इस रोग के कारण मानव की भावात्मक अशान्ति तथा लम्बी चिन्ता आदि से आत्मबल गिरता जाता है। मूलत झिल्ली की सूजन, रक्तवाहिनियो मे विकृति तथा जोड़ो के आसपास क्रिस्टल्स का जमाव हो जाना इसका मूल कारण है। छोटे-छोटे जीवाणु भी इसका मूल कारण हैं। यह जीवाणु आरंभ से ही शरीर मे होते है, लेकिन जब हमारी आन्तरिक शक्ति क्षीण हो जाती है, तब यह जीवाणु जोड़ो पर अचानक आक्रमण करते हैं। यह रोग जोड़ों की सूजन तथा विकृति तक ही सीमित नही है। इससे मासपेशियाँ, स्नायु तथा तन्तु भी प्रभावित होने शुरू हो जाते है। अगर इस रोग का ठीक समय पर इलाज नहीं कराया जाये तो यह हृदय तथा फेफड़ो को भी प्रभावित करता है। कई रोगियो को ऐसा आभास होता है जैसे शरीर मे विशेषकर अंगुलियो, घुटनो, पिंडलियो व टखनो के आस-पास सूइयॉ चुभ रही है। कई लोगो के नाखून कमजोर व भुरभुरे हो जाते हैं। रक्तवाहनियों में सूजन के कारण प्रायः टागो व पीठ् पर गहरे रंग के धब्बे व फोडे हो जाते है।

2. अस्थि संधिशोध (ओस्टीओर्थराईटिस) (Osteoarthritis)

यह रोग जोड़ों का चिरकालिक शारीरिक क्षीणता का रोग है। कई वर्षों तक यह व्याधियाँ बनी रहती हैं तो यह रोग धीरे-धीरे असाध्य बन जाता है। इस रोग मे एक या एक से अधिक जोड़ो मे पीडा, जकड़न तथा कड़कड़ाहट की आवाज सुनाई देती है। प्राय· चलने-फिरने या शारीरिक श्रम के पश्चात् जोड़ो मे पीड़ा और अधिक बढ जाती है। प्रातः उठते समय जोड़ो मे काफी जकड़न प्रतीत होती है, लेकिन धीरे-धीरे रोगी गति करता है, तो यह पीड़ा कम होती रहती है। इस रोग का सबसे दुखद पहलू यह है कि कभी-कभी घुटनो के आस-पास व कभी पूरे पाव मे सूजन आ जाती है। विशेषत इस रोम मे वे अंग अधिक प्रभावित होते हैं जिन पर पूरे

शरीर का बोझ पड़ता है, अर्थात् रीढ़ की हड्डी, घुटने व कूल्हे आदि। समस्त जोड़ जहाँ से रोगी हरकत करता है, वे धीरे-धीरे सख्त होने लगते हैं। जब दोनो सिरे मिलते है तो असहनीय पीड़ा होती है। माता से यह रोग लड़की तक पहुंच जाता है, लेकिन लड़का प्रभावित नही होता। यह रोग केवल जोड़ो का ही है। रूमेटाइड अर्थराइटिस के रोगी को ना तो ज्वर आता है और ना ही भूख कम लगती है।

अत· अगर रोगी को इस रोग से मुक्ति पानी है तो प्रकृति के इस नियम को समझना होगा। चूंकि मानव शरीर 7 रंगो का पिण्ड है, सूर्य की रश्मियो मे भी सातो ही रंग है और हमारे शरीर के रक्ताणु एवं श्वेताणु का सूर्य-रश्मियो से सीधा सम्बन्ध है। इसलिये प्रकृति ने सात रंग के फल प्रदान किये है। अगर इन सातों रंगो का सामंजस्य स्वास्थ्य के लिये तरीके से उपयोग लिया जाये तो इस रोग से मुक्ति पाई जा सकती है।

आकृति 53

गठिया एवं जोड़ों के दर्द का घरेलू चिकित्सा द्वारा निराकरण:—

सर्वप्रथम गठिया से पीड़ित व्यक्ति को आमाशय शुद्धि के लिए निम्न चूर्ण का तीन दिन तक सेवन करना होगा—

1 छोटी हरड़ 50 ग्राम
2. आंवला : 50 ग्राम
3. दानामेथी 50 ग्राम
4. अजवाइन . 50 ग्राम
5. काला नमक 20 ग्राम

इन सभी पदार्थो को कूट-छान कर चूर्ण बना ले तथा सोते समय दो चम्मच गरम पानी के साथ तीन दिन तक लगातार सेवन करे। इससे आपके आमाशय का शुद्धिकरण होगा।

आहार चिकित्सा द्वारा गठिया एवं जोड़ों के दर्द का निवारण

वार	प्रात कालीन भोजन	दोपहर का नाश्ता	सायकालीन भोजन	अन्य निर्देश
सोमवार	करेले की सब्जी, अदरक	मिश्रित फल मौसम्बी, पपीता	पालक, बथुआ या चंदलिया	नीबू व दही के अलावा सभी खटाइया वर्जित हैं।
मगलवार	केर, सागरी एव कुमटिया, अदरक	आलूबुखारा, सेब, तरबूज, अनार, अगूर, चुकन्दर, गाजर, लीची	आवले की कढ़ी	नीबू दाल मे डालकर सेवन करे, शिकंजी नहीं।
बुधवार	दानामेथी या हरी मेथी, अदरक	कच्चे नारियल का पानी	मिश्रित दाल	दही सब्जी मे डालकर सेवन करे, कच्चा नही।
गुरूवार	ग्वारफली, अदरक	आवले की सब्जी बनाकर सेवन करे, कच्चा नहीं।		सभी सब्जियो मे धीरे-धीरे हल्दी की मात्रा बढ़ाते जावे।
शुक्रवार	आंवला, अदरक	(कोई भी दो फल रुचि अनुसार)	मूली पत्तेदार या चदलिया	व मिर्ची की मात्रा घटाते जावे क्योंकि हल्दी शरीर मे प्रतिरोधात्मक शक्ति बढ़ाती है।

शनिवार	ककेड़ा या करेला, अदरक	सरसों या पालक	आवले की कढ़ी एव चावल-मूग की खिचड़ी
रविवार	ग्वारपाठा, अदरक या थोर की पपड़ी (जंगलो मे वर्षा ऋतु मे आसानी से सुलभ होती है)	दो मौसम्बी का रस व 100 ग्राम नारियल के पानी को धीरे-धीरे सिप करते हुए सेवन करे	रविवार को शाम को चपाती न ले

सोमवार — हर माह के अन्तिम सोमवार को नारियल का पानी (मौसम्बी का रस), पपीता एवं मतीरे का सेवन करे। किसी भी तरह का ठोस आहार न ले।

आवश्यक निर्देश :

(1) प्रातः 7.00 बजे तुलसी के 11 पत्ते बारीक पीसकर दो चम्मच शहद मे एक माह लगातार सेवन करे। पीने का पानी शुद्ध होना आवश्यक है या फिर तुलसी जल का सेवन करे।

(2) प्रात· सूर्योदय के समय 5 मिनट तक धूप का सेवन करें।

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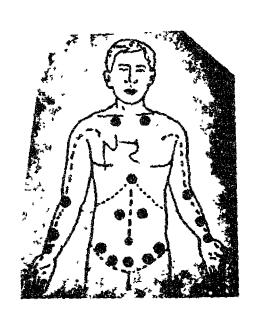
अध्याय-10

स्वास्थ्य का रक्षक नाभिचक्र

(Solar Plexus)

एक्युप्रेशर चिकित्सा पद्धति में नाभिचक्र का स्थान महत्त्वपूर्ण
अत्यधिक वजन उठाने अथवा अत्यधिक गैस उत्पन्न होने पर ऊपर या
जाता है। नाभिचक्र के ठीक नहीं रहने पर पूर्ण स्वस्थ रहना संभव नही है
मे डायफ्राम के नीचे अवस्थित सभी अंगों का नियंत्रण करता है।

आकृति 54

विवरण

नाभिचक्र बिठाने का तरीका :—

रोगी को पीठ के बल सीधा लिटा देवे। तत्पश्चात् दाहिने हाथ की पांचो अंगुलियों व.े मिलाकर नाभिचक्र पर धीरे-धीरे दबाव डालें। जब धड़कन अथवा स्पन्दन शुरू हो जाए उस समय यह क्रिया बन्द कर दें। इसके अलावा खाली गिलास को नाभिचक्र पर उल्टा रख कर हल्का दबाव डालें इससे भी नाभिचक्र केन्द्र में पुनः स्थित हो जाता है।

अतः प्रत्येक बार चिकित्सा या जाँच आरंभ करते समय नाभिचक्र की जाँच निम्न में किसी एक विधि से करनी चाहिए। नाभिचक्र अपने वास्तविक स्थान पर है या नही, यह देखने के लिए प्रात-काल शौच क्रिया के बाद पीठ के बल सीधा लेट जाना चाहिए और हाथ बगल मे शरीर के साथ सीधे रखें तथा दूसरे व्यक्ति को एक धागा लेकर नाभि से छाती की एक तरफ की चुचुक (निपल) तक नापें, नाभि पर एक हाथ रखें धागा दूसरी तरफ की चुचुक (निपल) तक ले जाएं, अगर दोनो तरफ का नाप समान है तो नाभिचक्र अप े स्थान पर है अन्यथा नही। अगर नाभिचक्र ठीक है तो नाभि के ऊपर अंगुलियो से दबाव देने से जोर-जोर से आंत धड़कने की गति प्रतीत होती है, अन्यथा धड़कन (Throbing) नाभि के केन्द्र में नहीं पाया जाता जिसे 'Venacava' का हटना (*Slepping of venacava*) कहा जाता है। (2) दोनों हथेलियों को इकट्ठी करे और रेखा संख्या 1,2,3,4 को मिलायें। यदि नाभिचक्र ठीक होगा तो ये रेखाएँ परस्पर मिली होगी अन्यथा रेखाओं का मिलान नहीं होगा।

(3) सुबह खाली पेट पीठ के बल दोनों टांगें पसारकर लेट जाएं जैसा कि चित्र में दर्शाया गया है। अगर धरन पड़ी हुई होगी तो किसी एक पैर का अंगूठा दूसरे से कुछ ऊंचा होगा।

नाभिचक्र के ऊपर की ओर सरकने पर कब्जियत होती है और नीचे की ओर खिसकने पर वायु के दबाव के कारण दस्त होती है। दवाओं से यह ठीक नहीं किया जा सकता है। धरन ठीक करने के लिए सबसे आसान तरीका है कि जो अंगूठा नीचे है उसको हाथ के साथ ऊपर की ओर खींचकर दूसरे के बराबर करे। दो-तीन बार ऊपर की ओर नीचे वाला अंगूठा करने पर धरन अपने स्थान पर आ जाएगी।

नाभिचक्र ठीक करने के लिए नाभि के चारों तरफ से दबाव देकर केन्द्र में अंगुली से दबाव देते हुए व्यक्ति को पैर के बल बैठाया जा सकता है या प्रत्येक रोगी को रोग उपचार करते समय चित्र में दिखाए गए तलुवे एवं हथेली के प्रतिबिम्ब केन्द्र पर दबाव हल्का पर गहरा देना चाहिए।

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अन्त:स्त्रावी ग्रंथियां

(The Endocrine Glands)

मानव शरीर में ग्रन्थियो का महत्त्वपूर्ण योगदान है। ग्रंथियां कारखाने के कारीगरो के उस समूह के समान है जिनके बिना कार्य पूर्ण रूप से ठप्प हो जाता है।

ग्रन्थियो का निर्माण एवं इसकी प्रक्रिया भी अपने आप मे विलक्षण है। इनका निर्माण बहुत छोटी एवं सूक्ष्म कोशिकाओं द्वारा होता। अन्त:स्त्रावी ग्रथियां सीधे है ही अपने बनाये गये रस को रक्त द्वारा शरीर के विभिन्न आंतरिक अंगो तक पहुचाती है जबकि अन्य ग्रन्थिया नलिकाओ के माध्यम से अपने रस को शरीर के विभिन्न भागो मे पहुचाती है।

अन्त:स्त्रावी ग्रन्थियो का मुख्य कार्य अपने द्वारा निर्मित्त रस से शरीर की वृद्धि करना, पोषण करना एवं मांसपेशियो को संतुलित बनाये रखना है। साथ ही अन्य ग्रंथियो को नियंत्रित कर शरीर की विभिन्न क्रियाओ मे महत्त्वपूर्ण योगदान देना है।

अन्त:स्त्रावी ग्रन्थियो मे खराबी अथवा इनकी निष्क्रियता से शरीर मे आश्चर्यजनक परिवर्तन आ जाते हैं जो कि आयुर्विज्ञान पद्धति द्वारा सिद्ध हो चुके है। इनकी कार्यप्रणाली का आपस मे विचित्र तालमेल है एवं ये एक दूसरो ग्रन्थि की पूरक कही जा सकती हैं।

हमारे शरीर मे मुख्य अन्त स्त्रावी ग्रंथियों की स्थिति एव कार्यप्रणाली इस प्रकार है—

1 पिट्यूटरी ग्रंथि

2 पीनियल ग्रंथि

3. पैरा थायराइड ग्रंथि
4 थायराइड ग्रंथि
5 एड्रेनल ग्रंथि
6. डिम्ब ग्रंथिया
7. पाचनतंत्र की ग्रंथिया
8 थायमस ग्रंथि

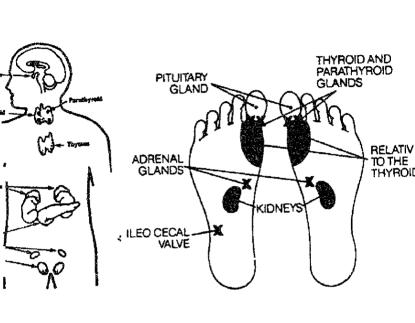
1. पिट्यूटरी ग्रंथि—The Pituitary or Master Gland

यह ग्रंथि मस्तिष्क के ठीक नीचे की तरफ होती है जो सम्पूर्ण शरीर में जाती है। इसका आकार लगभग मटर के दाने के बराबर होता है। इसका शरीर के संचालन मे महत्वपूर्ण योगदान है।

"Dwight C. Byers" के शब्दों में—The Pituitary has been termed, the Master gland of the body, general headquarters of the Endocrine system, and even the "Leader of the Endocrine orehestra.

यह ग्रन्थि मुख्यत· तीन भागो मे विकेन्द्रित होती है और कई हारमोन्स उत्पन्न करती है जिससे दूसरी प्रमुख ग्रंथिया प्रभावित होती है। इसका शरीर की वृद्धि मे प्रमुख योगदान है तथा यह हड्डियो के विकास पर नियंत्रण रखती है। बचपन मे इस ग्रन्थि द्वारा अधिक हारमोन्स बनाने के कारण मनुष्य के शारीरिक विकास मे एव आकार में असाधारण वृद्धि हो जाती है। इसके विपरीत यदि इस ग्रन्थि द्वारा हारमोन्स प्रणाली बचपन मे दोषयुक्त हो जाती है तो शारीरिक विकास एवं वृद्धि मे रुकावट आ जाती है, फलस्वरूप मनुष्य कद मे बौना अथवा ठिगना रह जाता है। इससे यह अन्दाज लगाया जा सकता है कि इस ग्रन्थि की शरीर मे कितनी उपयोगिता है।

इसके अतिरिक्त यह ग्रन्थि पाचन क्रिया एवं चर्बी पर भी प्रभाव डालती है। इसकी दोषपूर्ण क्रिया से 'डाईबिटीज' रोग होने की सम्भावना भी रहती है। यह रक्तचाप को नियंत्रित भी करती है।

इसकी दोषपूर्ण कार्यप्रणाली के कारण निम्न रोग होने की सम्भावना रहती है, जैसे—मधुमेह कमजोरी बालों का झड़ना अधिक प्यास लगना इत्यादि

आकृति 55

एक्युप्रेशर द्वारा इसके निम्न प्रतिबिम्ब केन्द्रों पर प्रेशर दिया जाना चाहिए से इसकी कार्यप्रणाली सुचारू रूप से संचालित हो सके—

1. हाथ एवं पैर के अंगूठों के अग्रभाग—बाएं से दाएं

कार्यगति नियंत्रित करने के लिए इसके विपरीत प्रेशर दिया जाना चाहिए यानि से बाएं ।

पैरा-थाइरायड ग्रन्थि (Parathyroid Gland)

ये छोटी-छोटी ग्रंथियां संख्या में चार होती हैं जो थाइराइड ग्रंथि के पीछे की होती हैं। इनका कार्य शरीर मे कैल्शियम एवं फासफोरस को बनाए रखना है कारण शारीरिक संतुलन बना रहता है। इनका स्नायु संस्थान एवं मांसपेशियों को त्रेत करने में महत्वपूर्ण योगदान है। इनका सही प्रकार से शरीर में कार्य करना री है अन्यथा रक्त में कैल्शियम की मात्रा बढ़ जाने से गुर्दों मे पथरी (Stones) का खतरा पैदा हो जाता है

3. थायराइड ग्रन्थि (Thyroid Gland)

यह ग्रन्थि गले के बीचों-बीच दो शाखाओ में विभक्त होती है। यह ग्रन्थि शरीर के विकास में अपना महत्त्वपूर्ण योगदान देती है। इसका दांतों के विकास एवं मानसिक विकास में भी महत्त्वपूर्ण योगदान है। यह ऑक्सीजन का शरीर में संतुलन बनाए रखती है तथा कार्बन-डाई-आक्साइड के निष्कासन का मार्ग प्रशस्त करती है। इस ग्रन्थि का संतुलित रहना भी अति आवश्यक है अन्यथा वजन बढ़ना, शरीर मे सूजन आ जाना, शिथिलता, दिल का तेजी से धड़कना एवं त्वचा मे रूखापन आ जाता है।

एक्युप्रेशर-प्रतिबिम्ब केन्द्र—उपरोक्त अनुसार—

प्रेशर देने की विधि—इस ग्रन्थि के अल्पस्राव की दशा में प्रेशर बाएं से दाएं दिया जाना चाहिए एवं अतिस्राव की दशा में इसके विपरीत प्रेशर दिया जाना चाहिए। इसके अतिरिक्त भी प्रमुख ग्रन्थियों के प्रतिबिम्ब केन्द्रों के ऊपर भी प्रेशर दिया जा सकता है।

4. एड्रेनल ग्रन्थि (Adrenals)

ये ग्रन्थियां गुर्दों के ऊपर जोड़ों के रूप में एक-एक ग्रन्थि के हिसाब से अवस्थित होती हैं। इनका आकार एक इंच चौड़ा एवं डेढ़ इंच मोटा होता है। ये प्रत्येक गुर्दे के दाहिनी ओर स्थित होती है। ये ग्रन्थियां रक्त के दबाव एवं मांसपेशियो पर प्रभाव डालती हैं। यदि इनका कार्य संतुलित नहीं हो तो शरीर मे डरपोकपन, पित्त, गैस एवं मोटापे सम्बन्धी व्याधियाँ पैदा हो जाती हैं।

इन ग्रन्थियों का जनन-संस्थानो (Sex Glands) पर महत्त्वपूर्ण योगदान है। इस ग्रन्थि के हारमोन्स को तीन समूहो में विभक्त किया गया है—

1. The body's own internal cortisone-like compounds which regulate sugar metabolism and combat inflammation.
2. Electrolyte regulating hormones that control sodium and potassium and water balance, and
3. Sex hormones that supplement those secreted by the gonads

के कारण इस ग्रन्थि का स्राव बढ़ जाता है, फलस्वरूप निम्न घातक रोगो का खतरा उत्पन्न हो जाता है—

1 An immediate rise in blood pressure,
2 Stepped up respiration rate,
3. Stimulation of the skeletal muscles thus increasing the capacity for work;
4. Increase in the basal metabolism rate and the rate of oxygen consumption, and
5. Increase blood sugar by stimulating the liver to release glucose from glycogen.

इस प्रकार एड्रेनल ग्रन्थि का शरीर मे संतुलित रहना अत्यधिक जरूरी है। हृदयरोग एवं अस्थमा जैसे रोगों मे भी इस ग्रन्थि का महत्वपूर्ण योगदान है।

5. डिम्ब ग्रन्थियां (Ovaries) या Reproductive System

जीवन अपने आप मे एक पवित्र कार्य है। ईश्वर ने प्रत्येक प्राणी एवं जीव जन्तु को धरती पर जीवन प्रदान कर अमूल्य उपहार दिया है। यह भी सत्य है कि प्रत्येक के जीवन-संघर्ष मे उतार-चढ़ावो का अम्बार लगा रहता है।

ये ग्रन्थियां मनुष्य मे स्त्री अथवा पुरुष दोनो मे प्रजनन अंगों का विकास करती हैं एवं सैक्स हारमोन्स (Sex Cells) उत्पन्न करती हैं जिन्हे सुपरमेटोजोआ और ओवा कहते है।

6. पाचनतंत्र की ग्रंथियां (The Pancreas)

जिस प्रकार मशीनो को चलाने के लिए ईंधन की आवश्यकता होती है उसी प्रकार शरीर रूपी मशीन की समस्त क्रियाओ के संचालन के लिए भोजन की आवश्यकता होती है। भोजन शरीर मे पहुच कर पाचन क्रिया के बाद जीव द्रव्य के निर्माण मे भाग लेता है और आक्सीकृत होकर ऊर्जा का उत्पादन करता है। यही ऊर्जा शरीर में होने वाली जैविक क्रियाओ में प्रयोग होती रहती है। भोजन आमतौर पर ठोस अवस्था में होता है। इस अविलेय भोजन को पाचक रसों की सहायता से रासायनिक अभिक्रियाओं द्वारा घुलनशील और अवशोषण योग्य बनाने की व्यवस्था होती है। इस कार्य में भौतिक और रासायनिक दोनों ही क्रियाएं होती है। वह स्थान जहा पर पाचन कार्य होता है उसे भोजन नली कहते हैं तथा वह अग जहा से

रासायनिक द्रव्य निकलकर आते है और पाचन क्रिया मे सहायता देते है, उसे पाचन ग्रंथि कहते हैं। इस प्रकार भोजन नली और पाचन ग्रंथियां मिलकर पाचनतंत्र का निर्माण करती है।

भोजन कैसे पचता है?

भोजन की पाचन क्रिया मुंह से ही आरम्भ हो जाती है। भोजन को चबाते समय मुह मे स्थित लार ग्रंथियां (Salivary Glands) भोजन क्रिया करती है और कार्बोहाइड्रेट को शक्कर मे बदल देती है। इसके बाद यह ग्रन्थि मे जाता है जहां एक सैकंड से भी कम समय रुक कर ग्रसिका मे पहुंचता है और 10 सैकंड बाद भोजन आमाशय मे पहुच जाता है। आमाशय मशक के आकार का मांसपेशियों का बना एक थैला होता है। यहां इसमे हाइड्रोक्लोरिक अम्ल जैसे पाचक रस मिल जाते है जो भोजन को अर्द्ध तरल में बदल देते हैं। तीन चार घंटे भोजन आमाशय मे रहता है, जहा अनेक क्रियाओ के बाद यह ग्रहणी (Duodenum) में पहुचता है। यह छोटी आत का 25-30 सेमी. का पहला भाग होता है। यहा भोजन के मिश्रण मे एंजाइम और अग्नाशय (Pancreas), पित्ताशय (Gall Bladder) और आत की दीवारो मे स्थित ग्रथियो के पाचक रस मिलते है। कुडली के आकार की मांसपेशी की यह नली लगभग 6 5 मीटर लम्बी होती है। इसके तीन भाग होते है—ग्रहणी, जैजुनम और इलियम। लगभग 5 घंटे तक यहां पाचन क्रिया जारी रहती है और भोजन चीनी, एमिनो अम्लो और वसा मे टूट जाता है। यही पर अंगुली जैसी संरचनाओ द्वारा पोषक तत्व रक्त तक पहुंच जाते है। रक्त परिसंचरण द्वारा ये पोषक तत्व समस्त शरीर में पहुचते है।

7. थायमस ग्रंथि (Thymus Gland)

यह ग्रंथि गर्दन और हृदय के बीच स्थित होती है। यह ग्रंथि मुख्यतः जन्म से दो वर्ष के मध्य विकसित होती है और किशोरावस्था तक धीरे-धीरे लुप्त हो जाती है। इसका मुख्य कार्य बच्चो के शारीरिक विकास में सहायक होना है एव जननेन्द्रियो के विकास पर प्रभाव डालना है।

8. पीनियल ग्रन्थि (Pineal Gland)

यह ग्रन्थि मस्तिष्क के भीतर अर्द्ध गोलार्द्ध के पीछे होती है। यह ग्रंथि मनुष्य की तरुणावस्था से सम्बन्धित है। यह ग्रंथि शरीर के अन्दर खनिजो के संतुलन को बनाए रखती है। इसके असंतुलित होने से स्वभाव मे गड़बड़ी पैदा होने लगती है।

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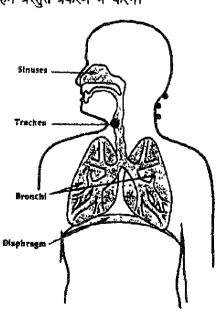
अध्याय-12

श्वसन-तंत्र (The Respiratory System)

शरीर को आक्सीजन की निरंतर आवश्यकता रहती है। सामान्यत. व्यक्ति भोजन के बिना काफी लम्बे समय तक जी सकता है, पानी के बिना कुछ दिनो तक टिक सकता है, पर आक्सीजन के बिना संभवत. चंद मिनटो से अधिक नही जी सकता। आक्सीजन की निरंतर आपूर्ति के साथ-साथ शरीरस्थ कोशिकाओ के कार्यों के परिणाम-स्वरूप कार्बन-डाइ-आक्साइड के रूप में उत्पन्न अपशेष के निष्कासन की भी आवश्यकता रहती है। इन दोनों आवश्यकताओ की पूर्ति श्वसन-तंत्र के द्वारा होती है, जिसकी चर्चा हम प्रस्तुत प्रकरण में करेगे।

आकृति 56

श्वसन-तंत्र के अवयव

हमारा श्वसन-तंत्र मुख्यतः श्वासोच्छ्वास आने-जाने के पथ एवं उसको वहन करने वाली नलिकाओं से बनता है। इनमें नाक, श्वसनी एवं श्वसनिका क्रमशः एक शृंखला में उस प्रकार से जुड़े हैं जिससे बाहर से हवा भीतर फेफड़ो तक पहुंचती है। श्वसनिकाएँ छोटी-छोटी शाखा-प्रशाखाओं के रूप में प्रस्फुटित होती हैं एवं फुफ्फुस के भीतर एक उलटे वृक्ष की तरह लगती हैं। श्वसनिकाएं बहुत छोटे-छोटे थैलीनुमा प्रकोष्ठो में समाप्त होती हैं, जिन्हें 'श्वासप्रकोष्ठ' कहा जाता है। ये श्वास-प्रकोष्ठ दिखने में अंगूर के गुच्छे की तरह लगते हैं। प्रत्येक प्रकोष्ठ के चारो ओर कोशिकाओं की एक विस्तृत जाली-सी फैली हुई रहती है। प्रकोष्ठ और कोशिकाओं की दीवारो को पार कर वायु (प्राणवायु एवं कार्बन-डाई-आक्साइड) इधर से उधर और उधर से इधर विस्तृत होती रहती है। वायुओ के आदान-प्रदान का यथार्थ स्थान यही है। श्वसनिकाएं और श्वास-प्रकोष्ठो से बनता है फुफ्फुस। फुफ्फुस स्वयं मांसपेशियों से रहित है, इसलिए श्वसन-क्रिया में फुफ्फुस का योगदान पसली के ढांचे के संचलन के द्वारा प्राप्त होता है। पसली के ढांचे का संकुचन और विस्तरण सम्बन्धित मांसपेशियों द्वारा धमनी की तरह होता है तथा इसका नियंत्रण तंत्रिकाओ के द्वारा होता है।

नाक (Nose) :—

नाक श्वसन-तंत्र का प्रवेश-द्वार है। भीतर प्रवेश करने वाली हवा को यह छानता है तथा गर्म एवं नम बनाता है। नथुनों एवं उनके आसपास के भीतर के हिस्सों पर छोटे व बड़े बाल होते हैं, जो बाड़ का कार्य करते हैं। यह प्रथम रक्षा पंक्ति है, जो भीतर आने वाली हवा में विद्यमान अनावश्यक बड़े कणो को आगे बढ़ने से रोक देती है। नाक की गुहा का भीतरी भाग श्लेष्म-झिल्ली के द्वारा आच्छादित होता है। रजकण एवं अन्य सूक्ष्म कण तथा कीटाणुओं को चिपचिपे श्लेष्म द्वारा वहीं रोक दिया जाता है। श्लेष्म-झिल्ली भीतर जाने वाली हवा को आर्द्र भी बनाती है।

मुंह से भी श्वास लिया जा सकता है, पर मुँह में प्रविष्ट हवा को साफ करने तथा गर्म एवं नम बनाने का उपकरण नहीं है। इसलिए मुंह से श्वास नही लेना चाहिए।

श्वास-नली Respiratory Tube (Trachia) :—

श्वास-नली 11 सेण्टीमीटर लम्बी और 2 से 2.5 सेण्टीमीटर व्यास वाली एक बेलनाकार नली है, जो अन्ननली के आगे भाग में होती है। फेफड़ों तक पहुंचने पर यह प्रत्येक फेफड़े मे एक-एक श्वासनलिका के रूप में विभाजित हो जाती है।

श्वास-नली की भीतरी सतह पर श्लेष्मोत्पादक कोशिकाओ की पंक्ति होती है। श्वास के साथ भीतर प्रविष्ट प्रदूषण-कणिकाएं यहा फंसा दी जाती है। श्वास-नली और श्वसनिका की भीतरी सतह पर उगे हुए रोमक रजो से भरे हुए श्लेष्म की ग्रसनी की ओर ऊपर की तरफ झाड़ू देते है, जहां से उसे बाहर खखारा जाता है।

फुफ्फुस (Lung) :—

पसली का अस्थिमय ढाचा फुफ्फुस, हृदय एव महाधमनी आदि मुख्य रक्त-वाहिकाओं का रक्षण करता है। इसे छाती या 'वक्षीय गुहा' कहते है। छाती के ऊपर की ओर गर्दन की पेशियो के दोनो पार्श्वो की ओर पसलियो, पीछे की ओर मेरुदण्ड (कसेरू), आगे की ओर उरोस्थित तथा नीचे की ओर तनुपट (अथवा महप्राचीरा) के द्वारा आबद्ध है। तनुपट एक गुम्बजाकार पेशीय दीवार है, जो वक्षीय गुहा और उदर-गुहा के बीच मे होती है। छाती की संरचना इस प्रकार की है कि फुफ्फुस के संकोच एवं विस्तार के साथ-साथ इसका भी संकोच और विस्तार आसानी से हो सकता है। छाती के अधिकांश हिस्से को दोनो फुफ्फुस रोके हुए हैं। दोनो फुफ्फुसो के मध्य मे हृदय और महाधमनी आदि मुख्य रक्त-वाहिकाओ का स्थान होता है।

मनुष्य के दोनो फेफड़ों मे लगभग 30 करोड़ से लेकर 65 करोड़ तक श्वास-प्रकोष्ठ होते है। इनका सतही क्षेत्रफल लगभग 90 वर्गमीटर होता है, जो कि एक टेनिस के मैदान जितना है। वायुओ के आदान-प्रदान की प्रगुणता का मुख्य कारण प्रकोष्ठो की विस्तीर्णता है।

फुफ्फुस शंकु के आकार वाले होते हैं, जिनका मूल तनुपट पर टिका हुआ है तथा शीर्ष गर्दन के तले को छूता है। मूल भाग को छोड़कर फुफ्फुस का शेष हिस्सा मुक्त रूप से हिलाया-डुलाया जा सकता है। दायां फुफ्फुस अपेक्षाकृत थोड़ा बड़ा और चौड़ा है, किन्तु लम्बाई में थोड़ा छोटा है। दायां फुफ्फुस 3 पिण्डकों तथा बाया फुफ्फुस 2 पिण्डको मे विभाजित होता है। फुफ्फुस हल्के, छिद्रालु एवं स्पंजी होते हैं। उनकी आन्तरिक संरचना शाखाओं में विभक्त नलियो एवं वायु-प्रकोष्ठो के द्वारा होती है। प्रत्येक कोष्ठक मोटे तौर पर गोलिका के आकार का होता है तथा इसका व्यास लगभग 100 माइक्रोन होता है। प्रत्येक कोष्ठक की दीवार अत्यंत पतली होती है तथा उसके चारो ओर वैसे ही पतली दीवारों वाली कोशिकाएं फैली हुई रहती है। कोशिकाओं का सतही क्षेत्रफल भी लगभग श्वास-प्रकोष्ठो के सतही क्षेत्रफल जितना ही होता है

श्वसन क्रिया .—

सामान्य मनुष्य की दृष्टि से श्वसन क्रिया केवल एक भौतिक क्रिया मात्र है, जिसमे क्रमशः हवा को फुफ्फुस के भीतर ग्रहण किया जाता है और पुनः निष्कासित किया जाता है। श्वसन क्रिया अधिकाशत· अपने आप चलने वाली क्रिया है। अपनी पूरी जिंदगी में एक मनुष्य लगभग 1 3 करोड़ घन फीट हवा ग्रहण कर लेता है। श्वसन क्रिया का पारिभाषिक नाम है—'वायु संचार'। इसमें दोनो पहलुओं का समावेश हो जाता है—श्वास या भीतर हवा का ग्रहण और निःश्वास या बाहर हवा का निष्कासन।

फुफ्फुस में वायु-विनिमय (बाह्य श्वसन) :—

जो हवा हम बाहर से श्वास के रूप में भीतर ग्रहण करते हैं उसमे लगभग 21 प्रतिशत आक्सीजन तथा 79 प्रतिशत नाइट्रोजन होता है। इसके साथ स्वल्प मात्रा में वाष्प, कार्बन-डाई-आक्साइड तथा अन्य प्रकार की निष्क्रिय वायु भी होती है। निःश्वास के द्वारा निष्कासित हवा मे 15 प्रतिशत आक्सीजन, 5 प्रतिशत से 6 प्रतिशत कार्बन-डाई-आक्साइड तथा 76 प्रतिशत नाइट्रोजन होता है। आक्सीजन और कार्बन-डाई-आक्साइड का विनिमय फुफ्फुस मे किस प्रकार होता है, इसकी चर्चा ऊपर की जा चुकी है। वायु के विनिमय को प्रभावशाली बनाने वाले मुख्य रूप से दो निमित्त हैं —

1. श्वास-प्रकोष्ठो एवं कोशिकाओं की अत्यन्त सूक्ष्म दीवारे।
2. विनिमय क्षेत्र का अत्यधिक विस्तृत सतही क्षेत्रफल।

श्वास-प्रकोष्ठों के चारो ओर फैली कोशिकाओं की जाली मे रक्त की बहुत बड़ी मात्रा विद्यमान रहती है। जैसे बताया गया है, कोशिकाएँ इतनी अधिक संकरी होती है कि रक्त कणिकाओ को उनमें गुजरते समय एक पंक्ति मे प्रवाहित होना पड़ता है। इसका परिणाम यह होता है कि प्रत्येक रक्त कणिका का प्रकोष्ठ स्थित वायु के साथ अच्छी तरह सम्पर्क हो जाता है। आक्सीजन के परिवहन की जिम्मेदारी रक्त कणिकाओ में विद्यमान हेमोग्लोबीन की है।

रक्त के द्वारा वायुओं का परिवहन :—

फुफ्फुस से निर्गत रक्त का रंग चमकीला सिंदूरी (लोहित) हेमोग्लोबीन का प्रत्येक अणु आक्सीजन के चार अणुओ का परिवहन कर सकता है। आक्सीजन युक्त

सिंदूरी रक्त फुफ्फुस से हृदय मे और वहाँ से परिसचरण तंत्र के द्वारा शरीर मे पहुंचाया जाता है। रक्त कणिकाओ मे से निकलकर आक्सीजन मे अणु कोशिकाओ की झिल्ली को पार कर ऊतकों के तरलांश मे प्रस्तुत होते रहते है तथा वहाँ से अन्ततोगत्वा चयापचय क्रिया के लिए कोशिकाओ के भीतर चले जाते हैं।

कार्बन-डाई-आक्साइड का परिवहन आक्सीजन की अपेक्षा अधिक जटिल होता है। इसकी अधिक मात्रा का परिवहन कार्बोनेट आयन के रूप में प्लाविका द्वारा होता है तथा कुछ अवशिष्ठ अंश प्लाविका मे घुल जाता है। समस्त प्रविष्ठ हवा का 4/5 जितना हिस्सा जो नाइट्रोजन के रूप मे होता है उसकी सामान्यतः शरीर द्वारा उपेक्षा की जाती है।

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अध्याय-13

आंख के रोग (Diseases of the Eyes)

मानव शरीर में आंखों की महत्वपूर्ण भूमिका है। यह कहा भी जाता है कि आंख है तो जहान है यानि आंख न हो तो जिन्दगी सारहीन है। आंखों की बनावट उतनी ही सूक्ष्म है जितना कि इसका आकार। आंख की बाहरी त्वचा एवं पलकें इसके आन्तरिक भागों का बचाव करती हैं।

आंख के मुख्यतः दो भाग होते हैं जिसे श्वेत मंडल (Sclera) एवं स्वच्छ मंडल (Comea) कहते है। श्वेत भाग के अलावा वह भाग भी है जिसमे बारीक शिराओं का जाल-सा होता है उसे कोरायड़ (Choroid) कहते है। आंख के बीच में (Iris) होता है जिसे उपतारा के नाम से जानते हैं। इसका तीसरा भाग छायापटल यानि (Retina) कहलाता है।

आंखों के प्रमुख रोग--

1. ग्लोकामा (Glaucoma)
2. डिपलोपिया (Diplopia)
3. आंख आना (Conjunctivitis)
4. रेटिना में सूजन (Retinitis)
5. रतौंधी
6. मोतियाबिंद (Cataract)

1. **ग्लोकामा**--यह रोग बहुधा अधेड़ उम्र के व्यक्तियों को होता है। इस रोग में नेत्र तनावपूर्ण रहते हैं, साथ ही नजर मे धुंधलापन आना शुरू हो जाता है।

तनाव के कारण सिरदर्द की शिकायत भी रहती है। समय पर इसकी तरफ ध्यान न दिये जाने से मनुष्य प्रायः दृष्टिहीन भी हो जाता है।

डिपलोपिया—इस रोग के लक्षण ये हैं कि इसमें रोगी को देखने में कठिनाई होती है। साथ ही दृष्टि में वस्तुएं धुंधली एवं एक की दो वस्तुएं दिखाई देती हैं।

आंख आना—इसका प्रमुख कारण अधिक नशीले पदार्थों का सेवन, धुएं अथवा धूल भरे माहौल में अधिक समय तक रहना, अधिक चिन्ता, रोना, कम रोशनी अथवा अत्यधिक रोशनी मे पढ़ना अथवा कई घंटे पढ़ना अथवा काम करना इत्यादि इस बीमारी को आमंत्रित करना है।

रेटिना में सूजन—इसके भी मूल कारण अधिक समय तक टी.वी. अथवा सिनेमा देखना, मधुमेह, अनिद्रा एवं भोजन में विटामिन 'ए' की कमी है।

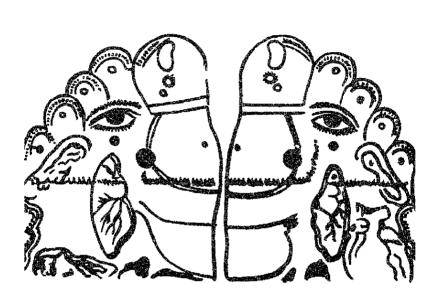
रतौंधी—इसका मूल कारण तो अभी तक ज्ञात नही किया जा सका है परन्तु अधिकांश व्यक्ति पौष्टिक आहार की कमी के कारण इसका शिकार होते हैं। वशानुगत बीमारी द्वारा भी यह रोग हो सकता है। इस रोग में रात को दिखाई नहीं देता।

मोतियाबिंद (Cataract)—इस रोग में आंख के पारदर्शी लैंस धीरे-धीरे साफ हो जाते हैं एवं रोगी को दिखाई देना बन्द हो जाता है। यह रोग वृद्धावस्था मे अधिक बढ़ जाता है। इसका समय पर ऑपरेशन करवाना ही इससे बचाव है।

रोग का निवारण अथवा बचाव

आंखों के रोगो के न पनपने दिये जाने के लिए व्यक्ति को साफ-सुथरे वातावरण ना चाहिए। पौष्टिक आहार का सेवन करना चाहिए जिनमे पत्तीदार हरी सब्जियाँ ल इत्यादि की मात्रा अधिक हो। पेट की पूर्णतया सफाई होते रहना चाहिए जैसे त मल-मूत्र त्याग इत्यादि। कब्ज कभी नही होने दें। काम करते, पढ़ते समय रोशनी का होना बहुत जरूरी है। सही ढग से बैठकर पढ़ना चाहिए।

हरी पत्ती की ओट में धूप स्नान लेने से एवं 'पामिंग' द्वारा ऑखो की ज्योति बढती गानार इस क्रिया को तीन माह तक करने से चश्मा भी उतारा जा सकता है।

आखो के एक्युप्रेशर द्वारा प्रतिबिम्ब केन्द्र—

आकृति 57

हरी पत्ती की ओट में नेत्र ज्योति के लिए धूप-स्नान :

सूर्य को 'सप्त-किरण' या 'सप्त-रश्मि' कहते है। पुराण मे सप्त-रश्मियो को (जो क्रमश- लाल, नारंगी, पीली, हरी, आसमानी, नीली एवं बैगनी होती है) सप्तमुखी घोड़ा बताया है। चूंकि उपर्युक्त सात रंगो के एकत्र होने से ही श्वेत रंग की उत्पत्ति होती है और उसमे सातो रंग की सूर्य किरणों के रोग-नाशक गुणों का समावेश रहत है। इनकी प्राप्ति हमे धूप स्नान, सूर्य स्नान से होती है। यह स्नान नेत्र ज्योति के लिए श्रेष्ठ है।

धूप स्नान करने की विधि :

सूर्य निकलने के थोड़ी देर बाद प्रातः 7 से 9 बजे तक सूर्य किरणो मे प्रखरत कम रहती है तथा मानव देह को स्वस्थ एवं बलिष्ठ बनाने के लिए प्रकृति द्वार. यह अमृत वर्षा है विशेषकर नेत्र ज्योति के लिए। हरी पत्ती की ओट मे धूप स्नान

श्रेष्ठ माना गया है। हरी पत्ती को आँखो के सामने रखकर प्रातः 8 बजे 15 मिनट तक नियमित तीन माह प्रयोग करने से आँखों की रोशनी बढ़ती है। इस चिकित्सा मे पीपल या केले की पुष्ट पत्ती को श्रेष्ठ माना गया है। लेकिन धूप स्नान करने से पूर्व नारियल का तेल या गाय का शुद्ध घृत धीरे-धीरे मरीज को स्वयं अपने हाथों से आँखो के आस-पास मलना चाहिए, फिर हथेली का ऊपरी हिस्सा आँखों पर लगाकर अन्दर ही अन्दर आँखों को बन्द करना व खोलना चाहिए तथा धीरे-धीरे सहन करने लायक दबाव लेना श्रेष्ठ रहता है। इस क्रिया को अंग्रेजी में Eye-Palming कहते हैं। इस योग के पश्चात् आँखों को ठण्डे पानी के साथ धो डालना चाहिए। इस क्रिया का प्राकृतिक चिकित्सा सम्बन्धी प्रयोग करने से नेत्र के सारे विकार दूर होने के साथ-साथ नेत्र ज्योति में वृद्धि होती है। तथा एक या दो नम्बर तक का चश्मा उतारा जा सकता है।

आवश्यक निर्देश :

1. हरी पत्तीदार सब्जियो का सेवन करना।
2. लाल रंग के फल सेवन करना—गाजर, चुकन्दर, अनार।

नाक व कान के रोग (Diseases of the Ears & Nose)

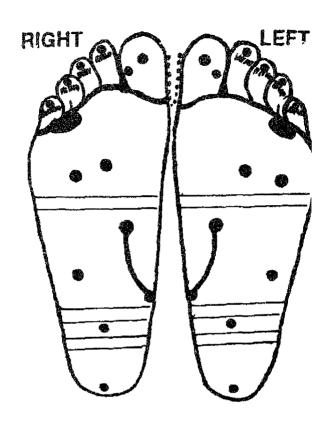
आंख की तरह कान भी मानव देह का प्रमुख अंग है। इसके द्वारा मनुष्य ध्वनि का ज्ञान अथवा सुनने की क्रिया करता है। इसका हमारी ज्ञानेन्द्रियों मे प्रमुख स्थान है।

कान की आन्तरिक रचना के अनुसार इसे तीन भागो मे विभक्त किया गया है—1. बाहरी, 2. मध्य और 3 आंतरिक। उक्त तीनो के परस्पर मेल से हमें आवाज का बोध होता है।

कानों के विभिन्न रोग—कानो का मुख्य रोग कम सुनाई देना अथवा बहरापन है। इसके प्रमुख कारण दुर्घटना, अत्यधिक जोर की ध्वनि अथवा धमाका, लम्बी बीमारी अथवा कानो का अधिक समय तक बहना अथवा पीप आना, अत्यधिक गर्म दवाइयो का सेवन करना एवं दिमाग की कमजोरी है।

यह भी तथ्य सामने आया है कि गुर्दे की बीमारियों के कारण भी कान के कई रोगों का प्रादुर्भाव होता है, जैसे—कानो में दर्द रहना, कानो मे सूनापन एवं विभिन्न प्रकार की आवाजे सुनाई देना इत्यादि। इसके अतिरिक्त पेट की गड़बड़ी, कब्ज, मधुमेह इत्यादि से भी कानों की विभिन्न बीमारियां उत्पन्न हो जाती हैं।

कानों की बीमारियों से बचाव अथवा निवारण—

सर्वप्रथम इनकी नियमित रूप से सफाई किया जाना आवश्यक है। अत्यधिक तेज आवाज के वातावरण मे रहना अथवा रेडियो, टी.वी. सुनना बेहद खतरनाक है। स्वस्थ शरीर ही भगवान का घर है, इसी प्रकार स्वस्थ रहकर नियमित दिनचर्या का पालन करें।

आकृति 58

नाक की बीमारियां—मानव शरीर की ज्ञानेन्द्रियों में नाक का प्रमुख
प्रकार देखकर, सुनकर, चखकर, छूकर और सूंघकर किसी वस्तु का
में सूंघने की क्रिया नाक द्वारा होती है।

नाक की प्रमुख बीमारियाँ— 1. जुकाम एवं नजला
2. साइनस
3. नकसीर इत्यादि

जुकाम एवं नजला एवं साइनस—इन रोगों के प्रमुख कारण स
आना, पसीने में ठंडी चीज का सेवन करना अथवा अत्यधिक ठंडे
कर गर्म वातावरण में प्रवेश करना इत्यादि है।

अब तक की शोध से यह परिणाम सामने आया है कि मस्तिष्क ए
सूक्ष्म सक्रमक रेशों (Crystals) का जमाव ही कारण है जिससे शरी

प्रतिरोध शक्ति कम हो जाती है एव इस बीमारी का जन्म होता है। धीरे-धीरे इसी के फलस्वरूप शरीर मे अन्य घातक संक्रामक बीमारियो का जन्म होता है जिनमें टी.बी , अस्थमा इत्यादि प्रमुख हैं।

लक्षण—इस रोग की शुरूआत मे छींकें आना, सिरदर्द अथवा सिर मे भारीपन रहना, सर्दी लगकर कम्पन शुरू होना, आंखे भारी रहना और आखो से पानी आना, गले मे दर्द, नाक में रुकावट अथवा सांस लेने मे भारीपन, गर्दन का जकड़ना, पीठ दर्द एवं बुखार इत्यादि प्रमुख हैं।

आकृति 59

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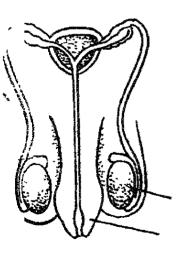
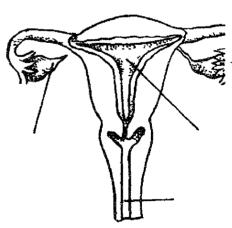
अध्याय-15

स्त्री-जनित रोग (Diseases of Women)

स्त्री के जनन अंग एवं क्रिया
(Female Reproductive organ and Physiology) :–

स्त्री के प्रजनन अंग है 1. डिम्ब ग्रन्थियां (Ovaries), 2. गर्भाशय (Uterus), (3) गर्भाशय नलिकाएँ (Fallopian tubes), (4) योनि (Vagina)। यह अंग शरीर मे श्रेणी की अस्थियो के निचले हिस्से (Pelvic Cavity) मे स्थित होते है।

आकृति 60

शिशु के गर्भ धारण से गर्भस्थ शिशु के निकलने तक या डिम्ब ग्रंथियों से डिम्ब बनने की प्रक्रिया में यह अंग अपनी अहम् भूमिका निभाते हैं। अंगों में होने वाले विकार का असर शिशु के विकास पर पड़ता है।

1. अस्थिमय श्रेणी (The Bony Pelvis) :—

श्रेणी एक अस्थिमय मार्ग है जिसमें से जन्म की प्रक्रिया के दौरान गर्भस्थ शिशु को निकलना होता है। इसकी संरचना शरीर के अनुरूप होती है और साधारण परिस्थिति मे प्रसव की प्रगति पर इसका कोई प्रभाव नही होता किन्तु कुविकास या अन्य बीमारियो की अवस्था मे प्रसव पर इसका प्रभाव पड़ता है। श्रेणी चार अस्थियो की बनी होती है। श्रेणी के चार जोड़ होते हैं जिन्हे अस्थिबन्धन (P. Ligaments) द्वारा मजबूती प्रदान होती है।

2. डिम्ब ग्रन्थियां (Ovaries) :—

अण्डाशय अर्थात् डिम्ब ग्रन्थियाँ (Ovanes) बादाम के आकार की दो रचनाएं होती है जो 4 से.मी. लम्बी, 2 से.मी चौड़ी एव 1 सेन्टीमीटर मोटी होती है। यह गर्भाशय के दोनों ओर गर्भाशय नलिकाओं के नीचे स्थित होती हैं। मासिक धर्म आने की अवस्था से लेकर मासिक धर्म बन्द होने की अवस्था तक हर महीने डिम्ब ग्रन्थियो मे से एक अण्डा पक कर अर्थात् डिम्बकरण (Ovulation) हो कर किसी एक गर्भाशय नलिका (Uterive tube) में पहुंचता है।

गर्भाशय नलिका (Fallopian tube) का सम्पर्क डिम्ब ग्रन्थि से एक लम्बे फिम्ब्रीया के द्वारा रहता है। प्रत्येक डिम्ब ग्रन्थि मीजोवैरिअम (Mesovanum) नामक लिगामेन्ट से जुड़ी रहती है।

3. गर्भाशय नलिकाएँ (Fallopian tubes) :—

गर्भाशय के ऊपरी भाग की ओर दोनों तरफ एक गर्भाशय नलिका होती है जो एक तरफ गर्भाशय गुहा में खुलती है और दूसरी ओर डिम्ब ग्रन्थियों के पास खुलती है। प्रत्येक नली की लम्बाई 10 से.मी. होती है। प्रत्येक नली के चार भाग होते हैं :—

(1) इनफन्डिब्यूलम (Infundibulum)—कीपनुमा चौड़ा भाग जो डिम्ब ग्रन्थि के समीप उदरीय गुहा मे खुलता है। इसमे कई उभार रहते है जिन्हें फिम्ब्री (Fimbriae) कहते हैं।

(2) एम्पयूला (Ampulla)—पतली दीवार वाला कुण्डलाकार भाग है जो इस नली का आधे से अधिक भाग बनाता है।

(3) इस्थमस (Isthams)—गोल भाग है जो इस नली का करीब एक-तिहाई भाग बनाता है।

(4) गर्भाशयिक भाग (Utenne Parts)—गर्भाशय की दीवार से गुजरता है और करीब 1 cm लम्बा होता है।

4. गर्भाशय (Uterus) :–

गर्भाशय की आकृति नाशपाती की भाँति होती है। आकार मे साधारणतया यह 7.5 cm लम्बा, 5 cm चौड़ा तथा इसके परदे (Walls) 2 5 cm. चौड़े होते है। वजन में यह 30-40 ग्राम तक होती है। गर्भाशय के पीछे मलाशय तथा सामने मूत्राशय होता है। नीचे की तरफ यह योनि से मिला होता है और इसके दायें तथा बाये गर्भाशय नलिकाएं होती हैं। गर्भाशय का मुख्य कार्य गर्भधारण करना है, अर्थात् गर्भस्थ शिशु की पालना। यह लचकीले तन्तुओ का बना होता है। गर्भकाल पूर्ण होने पर प्रसव होता है जिसमे शिशु योनि मार्ग द्वारा बाहर आता है। प्रसव के कुछ समय पश्चात् गर्भाशय पुनः अपनी प्रारम्भिक अवस्था में आ जाता है।

5. योनि मार्ग (Vagina) or The Vulva :–

स्त्री के बाह्य जननांगों के एक रूप को योनि (Valva) कहते हैं। ये निम्नलिखित भागों के बने होते हैं :—

1. मांस वेनेरिस या प्यूबिस, (Mon Veneris Or Pubis)
2. लेबिया मेजोरा एवं लेबिया माइनोरा (Labia Majora and Labia Minora)
3. क्लिटोरिस (Ciltons)
4. वेस्टिब्यूल (Vestibule)
5. योनि द्वार (Orifice of the Vapine, The intration)
6. हाईमन (Hymen)

मासिक धर्म (Menstruation) (रजोधर्म) :–

माहवारी चक्र की अंतिम क्रिया रक्तस्राव है जो कि स्वस्थ स्त्रियों मे 28 से 30 में यौवनारम्भ से रजोनिवृत्ति तक होता रहता है।

माहवारी चक्र दिन (Menstrual Cycle) की इस अवधि में जहां प्रथम 14 दिन में डिम्बकरण (Ovulation) और इस प्रकार 21 दिन तक गर्भाशय (Uterus) में निषेचित डिम्ब के आगमन की पूर्ण रूप से तैयारी रहती है यदि निषेचित डिम्ब

की स्थिति मे गर्भ ठहर जाता है जो गर्भाशय की सारी तैयारी भ्रूण के विकास मे काम आ जाती है। यदि डिम्ब अनिषेचित रहा तो गर्भ नही ठहरता है और गर्भाशय द्वारा पूर्ण रूप से की गई सब तैयारियां व्यर्थ हो जाती हैं और फिर आर्तवकाल (Menstrual Period) शुरू हो जाता है और गर्भाशय से सम्बन्धित शिशु के पोषण के लिये जो रक्त जमा हो जाता है, मोटी एन्डोमीट्रिअम के टूटने की प्रक्रिया शुरू हो जाती है और वह योनि मार्ग से बाहर चला जाता है। यही रक्त मासिक धर्म, ऋतुधर्म, रज आना, कपड़े होना या माहवारी कहलाता है।

यौवनारंभ (Puberty) :–

लड़की की वह अवस्था जिसमे वह यौवन काल मे प्रवेश करती है और जहां आंतरिक एवं बाह्य जनन अंगों का विकास आरम्भ होता है, मासिक धर्म की शुरूआत होती है। साधारणतया 10-16 वर्ष के काल को यौवनारंभ (Puberty) कहते हैं, जब वह प्रथम रजस्वला होती है। साधारणतया ठंडे प्रदेशो में 15-16 वर्ष की अवस्था मे यह क्रिया शुरू होती है।

रजोनिवृत्ति (Menopause) :–

मासिक धर्म 35 वर्ष की अवधि तक आता रहता है अर्थात् 45-50 वर्ष की आयु के मध्य मासिक धर्म हमेशा के लिये बन्द हो जाता है। इस अवस्था को रजोनिवृत्ति (Menopause) कहते हैं। रजोनिवृत्ति का अर्थ है प्रजनन अवधि की समाप्ति। डिम्ब क्षरण समाप्त हो जाता है।

गर्भधारण (Conception) :–

"डिम्ब एव शुक्राणु के संयोजन को गर्भधारण" निषेचन या गर्भाधान (Impregnation) कहते हैं। निषेचित डिम्ब एन्डोमीट्रीयम में अंत:स्थापित हो जाता है जो हॉमेनिज की क्रिया द्वारा इसे प्राप्त करने के लिये तैयार हो चुकी होती है। यह निषेचित डिम्ब यहीं रहता है और आकार में तब तक बढ़ता है जब तक कि यह गर्भ को पूर्णत: नही भर देता है। इसके बाद गर्भाशय भी इसी के साथ गर्भावस्था के अन्तिम समय तक बढ़ता रहता है।

गर्भस्थ शिशु (The Fetus) :–

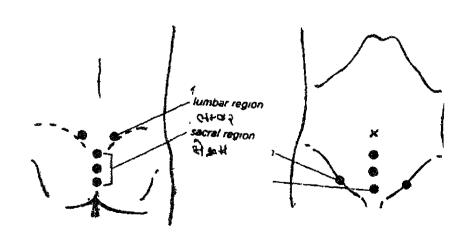
9वे सप्ताह से अन्त तक के गर्भ को गर्भस्थ शिशु (Fetus) कहते हैं। साधारण परिस्थितियों में इसका विकास एक निर्धारित मापदण्डों के आधार पर होता है और भ्रूण का विकास, लम्बाई, वजन आदि के आधार पर सुनियोजित कर विकास की श्रेणी एव गर्भधारण की अवधि का ज्ञान होता है।

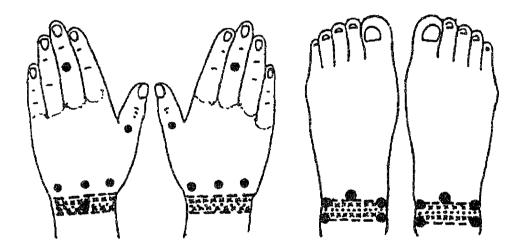
प्रजनन अंगों सम्बन्धी रोग :—

1. प्रथम मासिक धर्म में देरी या मासिक धर्म न आना (Amenorrhea)

मासिक धर्म न आना दो प्रकार का होता है—(1) पहली अवस्था को ''प्राथमिक अनार्तव'' (Primary Amenorrhea), अर्थात् 16-17 वर्ष की आयु तक मासिक धर्म आरम्भ ही नही हुआ।

(2) दूसरी अवस्था को ''द्वितीयक अनार्तव'' (Secodary Amenorrhea) कहते हैं, अर्थात् मासिक धर्म आरम्भ हो कर कुछ समय के बाद बन्द हो गया हो। गर्भावस्था (During Pregnancy) तथा प्रसव के बाद बच्चे को दूध पिलाने के महीनो में मासिक धर्म नहीं आता। रजोनिवृत्ति (Menopause) की अवस्था मे यह प्राकृतिक रूप में हमेशा के लिये बन्द हो जाता है। और इस अवस्था को सामान्य अवस्था (Natural) माना जाता है। इसके अलावा यदि मासिक धर्म न आये तो कई कारण हो सकते हैं, जैसे—जनन अंगो का न होना, जनन अंगों का पूरी तरह विकसित न होना या विकृत होना, गर्भाशय ग्रीवा (Cervib) तथा योनि (Vagina) आदि का असामान्य होना। प्रजनन अंगो की किसी बीमारी तथा किसी अन्य बीमारी, जिसमे रोगी की शारीरिक क्षमता कम हो गई हो, ऐसी अवस्था मे भी ऋतु स्राव नही आता। रक्त की कमी, मधुमेह, क्षय रोग, शरीर के अन्य भागों में पाई जाने वाली बीमारी आदि में भी रक्त स्राव नहीं होता। हार्मोंस (अन्त:स्रावी ग्रन्थियों की कमी) के कारण भी मासिक धर्म का दोष हो जाता है। मासिक धर्म कई बार मानसिक तौर पर, गर्भ ठहरने के डर या संतान पैदा करने की लालसा आदि मे भी नही आता है।

आकृति 61

2. **अनियमित मासिक धर्म (Irregular Menstruation) :–**

(a) Oligomenorhae (कम ऋतुस्राव) : कम ऋतुस्राव होना भी रोग का लक्षण है। मानसिक उत्तेजना, जलवायु के परिवर्तन, शारीरिक कामकाज, शारीरिक कमजोरी आदि का मासिक चक्र पर प्रभाव पड़ता है। शारीरिक क्षमता से ज्यादा या शारीरिक क्षमता से कम काम करने वाली महिलाओ मे हारमोन की असमानता बने रहने के कारण मासिक धर्म अनियमित रहने लगता है। कम रक्त स्राव के कारण निम्न लक्षण रहने लगते हैं :—

आकृति 62

(1) मासिक धर्म के समय या पहले मन में उदासी का रहना।

(2) सिर और कमर मे दर्द रहना।

(3) आँखो के आगे कई बार अंधेरा-सा छा जाना।

(4) भोजन के प्रति अरुचि होना।

(5) स्वभाव मे चिड़चिड़ापन होना।

(6) हार्थों-पैरों में जलन रहना।

(7) नाभि मे दर्द का अनुभव करना।

(8) कई स्त्रियो मे स्तन सामान्य से अधिक बढ़ जाना या कम आकार का होना एव दर्द रहने लगता है।

(b) Dysmenorrhea : (Painful Periods : वेदनामय ऋतुस्राव)—जब साधारण से अधिक वेदना या कष्टदायक ऋतुस्राव हो तो यह रोग का सूचक है। ऐसी अवस्था को वेदनामय ऋतुस्राव या Dysmenerrhea कहते हैं। प्राय: यह स्थिति प्रथम दिन मे 10-12 घटे तक रहती है, जिसमें असहनीय पीड़ा होती है। यह पहली वार मासिक धर्म शुरू होने की अवस्था से 25 वर्ष की आयु तक की स्त्रियो को होती है। इसमे निम्न लक्षण होते हैं :—

(1) अत्यधिक पीड़ा के साथ मासिक धर्म का आना।

(2) जनन अंगो में सूजन होना।

(3) सम्भोग के समय पीड़ा।

(4) निष्क्रियता।

(5) कभी कम कभी ज्यादा रक्त स्राव रहता है।

(c) Menoorhopia or Polymenorrhr (अतिरज : अत्यधिक ऋतुस्राव होना)—प्रकृतिक नियम के अनुसार ऋतुस्राव 4-5 दिन तक रहता है, जिसमें दूसरे तथा तीसरे दिनों में शेष दिनों की अपेक्षा अधिक मात्रा में रक्त आता है। जब सामान्य अवधि में अधिक दिनो तक या अधिक मात्रा मे रक्त स्राव रहे तो उसे अतिरज या अत्यात्व (Polymenorrhr or Menoorhopia) कहते हैं। अतिरज एक लक्षण है, इसको दूर करने के लिये रोग का असली कारण ढूंढना आवश्यक है।

3. मासिक धर्म के पहले वेदना Premenstrual Tension :—

कई स्त्रियों में मासिक धर्म के 7-10 दिन पहले तनाव, उत्साहहीनता, कम्पन, चिड़चिड़ापन, योनि में जलन, मामूली से लेकर काफी सिर दर्द, छाती में दर्द, पेट व शरीर के कई दूसरे अंगो का थोड़ा फूल जाना महसूस होता है जो ऋतुस्राव शुरू होने के कुछ समय बाद ही समाप्त होता है। इसे Premenstrual Tension कहते हैं।

4. श्वेत प्रदर (Leucorrhea) :—

इस रोग मे ऋतुस्राव से कुछ दिन पहले या कुछ दिन बाद योनि से बिना रक्त के पानी सा आता है। यह पानी तरल या गाढ़ा होता है। कभी चिकना, चिपचिपा, दूध या पीला स्राव आता है जिससे दुर्गन्ध आती है

यह श्वेत प्रदर जनन अंगों के सक्रमण (Infection) तथा रोग प्रतिरोधक क्षमता की कमी आ जाने के कारण हो जाता है।

5. गर्भाशय प्रदाह (Inflammation of the uterus Metritis) :—

यह रोग साधारणत: प्रसव तथा गर्भपात के बाद होता है। प्रसव के बाद जब गर्भाशय अपनी पहली स्वाभाविक अवस्था में नही आता और पूरी तरह संकुचित नही हो पाता तो गर्भाशय का भाग काफी भारी और बोझिल प्रतीत होने लगता है और उसमे हमेशा दर्द रहने लगता है। यह रोग प्राय: अत्यधिक सहवास करने के कारण भी हो जाता है। इसके साथ प्रायः तेज बुखार तथा शरीर मे दर्द भी रहने लगता है।

6. योनि प्रदाह (Vaginitis (Inflamation of Vagina) :—

इस रोग में योनि में सूजन, जलन तथा दर्द हो जाता है। योनि का भाग प्राय: गर्म रहता है। यह रोग प्रायः संक्रमण (Infection), चोट लगने तथा अत्यधिक सभोग करने से होता है।

7. यौन सम्बन्धी रोग :—

यौन रोगों मे प्रमुख गोनोरिया (Gonorrhea) एवं Sypments मुख्य रूप से होते हैं। इसके अलावा Aids की बीमारी भी सहवास से एक-दूसरे को होती है। यह संक्रामक रोग है।

8. Fungal Infection of vagina :—

नमी व सफाई के अभाव में योनि पर फफून्द रोग हो जाता है और कई दिन तक जब यह रोग रह जाता है तो वहां Secondary Infection, Bacteria से हो जाता है, उसमे सूजन, दर्द एवं कभी मवाद आदि आता है।

9. Prolapsed Uterus :—

गर्भाशय जब अपने निश्चित स्थान से हट कर सामने या पीछे झुक जाता है उसे Prolapsed Uterus या Dispalcement Uterus कहते हैं। इस स्थिति के आगे कभी गर्भाशय अन्दर की ओर दब कर योनि तक आ जाता है, इसे Involution of Uterus कहते हैं। यह स्थिति प्रायः अधिक प्रसवों के होने या जनन अंगो मे अधिक समय तक रोग के रहने या मासपेशियों व बन्धन नेतु Ligamantus के

कमजोर पड़ जाने से होता है। प्रायः इस स्थिति के लिये शरीर मे कई समय से रहे शारीरिक रोग भी जिम्मेदार हैं।

10. बांझपन (Sterility) :—

"साधारणतया सामान्य प्राकृतिक संभोग करने एवं बिना गर्भ-निरोधक उपायो को काम में लेने के बाद यदि स्त्री में गर्भ नही ठहरता है तो उसे बांझपन या Sterility कहते हैं।" स्त्रियों में बांझपन दो प्रकार का होता है—

(a) Absolute Sterility (Primary Sterility)

(b) Relation Sterility (Secondary Sterility)

पूर्ण बांझपन की अवस्था मे प्रजनन अंग या तो पूर्ण विकसित नहीं होते हैं या विकृत होते हैं। Stmetro Defectivity की वजह से स्त्री गर्भ धारण कभी भी नही करने की स्थिति में रहती है, उसे Absolute Sterility कहते हैं।

दूसरी स्थिति में स्त्री में गर्भ धारण की सभी प्रकार की व्यवस्था या शक्ति होती है किन्तु कुछ बीमारीवश या हारमोनिक अवस्था से गर्भ धारण नहीं कर पाती। कई बार एक बार गर्भ-धारण के पश्चात् दूसरी बार गर्भ नही ठहर पाता है, उस स्थिति को Secondary Sterility कहते हैं।

बाँझपन पति या पत्नी दोनों मे अलग रूप से कार्य करता है। यदि पति मे कोई विकार हो, शारीरिक या शुक्राणुओं के कारण उस स्थिति में भी स्त्री को बाँझपन से रहना होता है। बांझपन पत्नी या पति में से किसी एक या दोनो में जनन-क्षमता सम्बन्धी किसी एक या अधिक विकारों के कारण हो सकता है। निःसन्तान होने की अवस्था में पति-पत्नी दोनों को अपनी उत्पादक क्षमता की जाँच करानी चाहिये।

11. स्वाभाविक गर्भपात (Miscarriage Spontaneous Abortion) :—

गर्भपात स्वतः हो जाय तो उसे स्वाभाविक गर्भपात कहते हैं, प्रायः कारणो का पता नहीं होता। ऐसा अनुमान है कि काफी मात्रा मे तथा तेज असर वाली औषधियो के सेवन, कई बार तेज बुखार रहने, गर्भवती स्त्री के पेट पर किसी कारण चोट लगने, बार-बार एक्स-रे करवाने का प्रजनन अंगों पर कुप्रभाव पड़ता है। तीव्र सक्रमण (Acute Infection), ग्रन्थियो के विकार, गर्भाशय या इसके समीप वाले भाग मे रसौली होने या योनि परीक्षण के समय कई बार उपकरण आदि डालने से गर्भपात हो जाता है

अन्य बीमारियाँ, जैसे—मधुमेह, हृदय या फेफड़ो की बीमारी, रक्तचाप, गुर्दों का रोग, रक्त गुणों के नहीं मिलने पर स्वाभाविक गर्भपात हो जाता है।

गर्भपात का मुख्य कारण कई बार Sexual Diseases गोनोरिया, सिफिलिस आदि में गर्भपात हो जाता है।

AIDS (Aquired Immune Deficieny Syndrome) :–

Virus की वजह से यह रोग सम्भोग के साथ पति-पत्नी या अन्य स्त्री के द्वारा फैलता है, जिसमें रोग प्रतिरोधक क्षमता खत्म हो जाती है और व्यक्ति दिन प्रतिदिन अन्य बीमारियो के चंगुल में फँसता रहता है और अंततः वह मृत्यु की ओर अग्रसर हो जाता है। प्रायः यह रोग 25-45 वर्ष की अवस्था मे होता है और पुरुष एवं स्त्री या दोनों रोग से ग्रसित हो जाते हैं। साधारणतया स्त्रियाँ Carrier का काम करती हैं और उनके संपर्क में आने वाले पुरुष को बीमारी से ग्रस्त कर देती है।

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अध्याय-16

आभूषण और स्वास्थ्य (Health & Ornaments)

चैतन्य केन्द्र एवं नाड़ी ग्रंथि संस्थानों का आभूषणों से प्रतिबिम्ब केन्द्रों पर प्रभाव व सम्बन्ध :—

सृष्टि की जब से दौड़ शुरू हुई है, तब से नारी को गहनो से (आभूषणों से) सदैव लगाव रहा है। जिस समय धातुओ की खोज नही हुई थी, उस समय ये गहने जानवरो की हड्डियो एवं हाथी दात से बनाये जाते थे। धीरे-धीरे इसमे परिवर्तन हुआ और रग-रगीले पत्थरो के गहने बनाये जाने लगे। तत्पश्चात् आभूषणो मे सोना, चाँदी व तांबे का उपयोग होने लगा। आज से लगभग पॉच-छः हजार वर्ष पूर्व आभूषणो का प्रयोग मिश्र मे हुआ। आज भी मिश्र के पिरामिडो मे मृतशवो (ममियो) पर गहनो के चिह्न दृष्टिगोचर होते हैं। सिन्धु घाटी सभ्यता का काल भी आज से पाँच-छः हजार वर्ष पूर्व का है। उस समय भुजबन्ध, करघनी, कड़ा का प्रयोग नारिया करती थी। हड़प्पा एवं मोहनजोदड़ो की खुदाई मे अर्द्धनारीश्वर की मूर्ति मे पार्वती भुजबन्द से सुशोभित होती प्रकट होती हैं।

आभूषणों का यदि वैज्ञानिक अध्ययन किया जाय तो आश्चर्यजनक तथ्य सामने आयेगे। माथे मे बोर, गले मे मगलसूत्र एवं हार, हाथो में भुजबन्द, कलाई मे चूड़ियॉ, कमर में करधनी (कन्दौरा), पॉव मे पायल व बिछिया इन सबका एक्युप्रेशर चिकित्सा के क्षेत्र में विशेष महत्त्व है। ये आभूषण शरीर के विभिन्न अंगो मे स्थित प्रतिबिम्ब केन्द्रों पर नियमित रूप से दबाव डालते रहते है, जिस कारण वे अंग सक्रिय व निरोग बने रहते हैं। सिर जहॉं स्त्रियां बोर बांधती है वह मासिक धर्म विकार का बिन्दु है। जहां कान छेदा जाता है वह स्मरण शक्ति एवं अनिद्रा का प्रतिबिम्ब केन्द्र है। जहॉं चूड़ियाँ पहनी जाती हैं वह मूत्राशय (प्रोस्टैट ग्लैड्स) व कुण्डलनी का रिफ्लैक्स बिन्दु है। पायजेब कुल्हे, घुटने, कमर एवं पांव के विकारो पर नियंत्रण करती है।

इस तरह हम यह कह सकते हैं कि आदिम युग मे आभूषणो का निर्धारण वैज्ञानिक अध्ययन एवं आरोग्य को मद्देनजर रखते हुए किया गया था। हमारे पूर्वजों ने इन्हें धारण करने की परम्परा तो बनाई लेकिन इनके वैज्ञानिक दृष्टिकोण के बारे मे विस्तृत जानकारी प्रदान नही की। आज देहातों में रहने वाली नारियो का आभूषणों से लगाव बना हुआ है। लेकिन शहरों में इसके प्रति रुझान कम होता जा रहा है। यही वजह है कि अधिकतर स्त्रियां सरदर्द, घुटनादर्द, अनियमित मासिक धर्म जैसी बीमारियो से ग्रसित हो रही हैं जबकी देहातों की स्त्रियां इन बीमारियों से मुक्त हैं।

आकृति 63 : ''आभूषणों से सुसज्जित एक महिला

क्र.सं.	आभूषण	सम्बन्धित प्रतिबिंब केन्द्रों का स्वास्थ्य से सम्बन्ध
1.	बिन्दी लगाना	सरदर्द के प्रतिबिंब केन्द्रों पर दबाव डालती है
2.	मांग भरना	मासिक धर्म सम्बन्धी विकार मिटाती है
3.	बोर, रखड़ी	प्रजनन अंग
4.	नथ	साइनस
5.	लूंग	याददाश्त व अनिद्रा
6.	मंगल-सूत्र	श्वास रोग (दमा), थाइमस गलैण्ड
7.	गले का हार	पिट्यूटरी पिनियल एवं थाइराइड ग्लैण्ड्स
8.	भुजबंद	हृदय.
9.	चूडियां	शारीरिक ऊर्जा (ऋणात्मक व धनात्मक)
10.	कन्दोरा (करधनी)	छोटी आंत, बड़ी आंत एवं उदर (एड्रिनल ग्लैण्ड)
11.	पायजेब	कूल्हे, घुटने व पीठ
12.	बिछुड़ी	आंख एवं बॉम्कल ट्यूब
13.	अंगूठियां	संचारण एवं ब्लड प्रेशर
14.	काजल	मानसिक शांति
15.	कुंकुम बिंदी	पीनियल ग्लैण्ड्स

आभूषण न सिर्फ सौन्दर्य के प्रतीक हैं अपितु शरीर के प्रतिबिम्ब केन्द्रो पर दबाव भी डालते हैं।

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राहत पहुँचाने की विधि

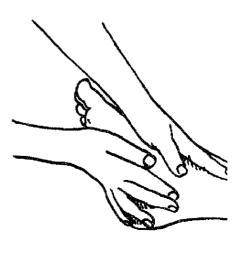
(Relaxation Technique)

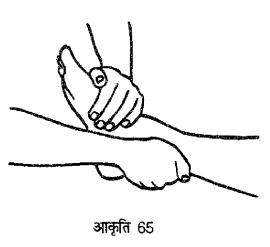
एक्युप्रेशर चिकित्सा में प्रमुख बिन्दु यह है कि सर्वप्रथम सम्बन्धित रोगी के को चिकित्सा हेतु तैयार किया जाता है। ''पैरों में ही वे समस्त बिन्दु हैं जो श त्येक अवयव से सम्बन्धित हैं।''

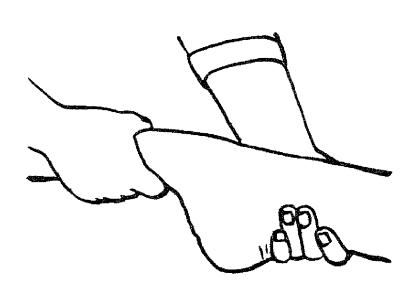
चिकित्सा पूर्व के कार्य को ही Relaxation (राहत तकनीक) कहते हैं।

रिलेक्शन तकनीक में निम्न नियमों का पालन किया जाना चाहिए—

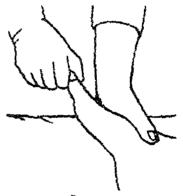
मालिश (Massage)—इस नियम के अन्तर्गत रोगी को सही तरीके बिठाकर उसके दोनो पैरो एवं तलवो की जांच की जाती है। यह भी जांच करना जरूरी है कि सम्बन्धित पैर मे कहीं घाव, चोट अथवा अन्य कोई जख्म न हो। तत्पश्चात् प्रत्येक पैर पर हाथों की पांचों अंगुलियों से तलवे के ऊपर से नीचे एवं नीचे से ऊपर तक हल्की-हल्की मालिश की जानी चाहिए। ऐसा 15-20 बार किया जाना चाहिए।

आकृति 64

2. **साइड मसाज (Side Massage)**—दूसरे चरण मे रोगी को खड़ा करके पंजे की दोनो हाथों से, पंजे के दोनों ओर ऊपर से नीचे की तरफ तथा कुछ हल्के दबाव से मालिश करनी चाहिए। ऐसा ही नीचे से ऊपर की तरफ Anti Clock-wise मालिश की जानी चाहिए। इस क्रिया को करीबन 15-20 बार दोहराना चाहिए।

आकृति 65

3. **पंजे को मोड़ना (Twisting)**—इस क्रिया के अन्तर्गत पूरे पंजे को दोनो हाथो से इस प्रकार पकड़ें कि हाथो के दोनों अंगूठे पैर के तलवे पर रहें एवं बाकी की अंगुलियां पजे के ऊपर रहे। फिर दोनो हाथो से पजे को मजबूती से पकड़ कर हाथो को एक-दूसरे की विपरीत दिशा मे घुमाएं। यह क्रिया भी 5-6 बार दोहराएं।

आकृति 66

ालवे का सहारा लेकर बाकी की अगुलियो को पजे के ऊपरी हिस्से पर इस ाकार रखे कि पूरा पजा पकड़ मे आ जाए। फिर इन्ही अगुलियो द्वारा थोड़ा ाहरा दबाव देकर धीरे धीरे ऊपरी अगुलियो तक दबाव देते हुए बढ़े। यह क्रेया 5-6 बार दोहराएं।

आकृति 67

अंगूठा घुमाना (Toe Rotating)—इसके बाद एक हाथ से पजा पकड़ कर दूसरे हाथ से पैर का अंगूठा पकड़ें, फिर इसको दोनों दिशाओं मे सीधी एवं विपरीत दिशा में 4-5 बार घुमाये। इसी तरह अंगूठे को आगे-पीछे घुमाएं।

आकृति 68

अंगुलियाँ घुमाना (Finger Rotating)—उपरोक्त विधि अनुसार शेष चारो अगुलियो को भी एक साथ या अलग-अलग घुमाये।

आकृति 69

टखने को घुमाना (Ankle Rotating)—एक हाथ की हथेली एड़ी को पकड़ें, तथा दूसरे हाथ से पंजे को अंगुलियों की तरफ से पकड़ कर, पूरे पंजे को उल्टी व सीधी दिशा में 8-10 बार घुमाये।

टखने से खिंचाव (Ankle Streching)—एक हाथ की हथेली में एड़ी को पकड़ें तथा दूसरे हाथ से पजे को अंगुलियो से पकड़ कर पूरे पंजे को थोड़ी ताकत से ऊपर की तरफ एवं नीचे की तरफ खीचे इससे पूरे पांव मे नीचे की

आकृति 70

तरफ खिंचाव-सा महसूस यह क्रिया 4-5 बार करें। सारी क्रियाएं दूसरे पांव

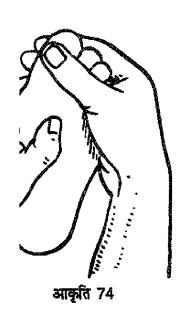
अब रोगी के पांव चिकित्सा करने के लिये इस प्रकार आवश्‍ प्रतिबिम्ब केन्द्रों पर द चिकित्सा शुरू करें।

आकृति 71

दबाव के प्रकार (Types of Pressure)

हल्का दबाव (Feather Touch)—कुछ नाजुक जगहों पर सिर्फ एक अंगुली या अंगूठे से बिल्कुल हल्का दबाव देते हैं उसे हल्का दबाव कहते हैं।

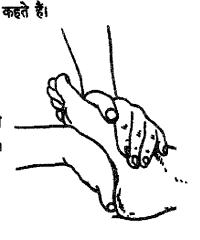
आकृति 72

सामान्य दबाव (Normal Pressure)—शरीर पर काफी जगह अंगूठे अथवा उपकरण द्वारा उतना ही दबाव देया जाता है जितना रोगी सहन कर सके।

आकृति 73

दो अंगुलियों/अंगूठे का दबाव (Double Finger / Thum Pressure)—एक अंगुली के ऊप दूसरी अंगुली रखकर फिर दोनो अंगुलि से दबाव देने को Double Finge Pressure कहते हैं। इसी प्रकार ए अंगूठे के ऊपर दूसरा अंगूठा रखकर दब देने को Double Thumb Pressu कहते हैं।

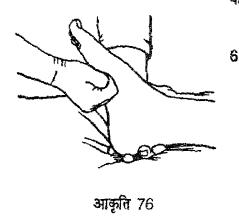
आकृति 74

हथेली का दबाव (Palm Pressure)—पूरी हथेली से किसी जगह पर दबाव देने को (Palm Pressure) कहते हैं।

आकृति 75

5. दोनों हथेलियों का दबाव (Double Palm Pressure)—एक हथेली के ऊपर दूसरी हथेली रखकर दबाव देने की क्रिया को Double Palm Pressure कहते हैं।

आकृति 76

6. पूरे शरीर का दबाव (Body Weight Pressure)—दोनो हथेलियो द्वारा पूरे शरीर का दबाव (पूरी ताकत) लगाने को Body Weight Pressure कहते हैं।

आकृति 77

राहत विधि–

एक्युप्रेशर चिकित्सा से पूर्व सर्वप्रथम नाड़ी संस्थान सक्रिय किया जाता है। इस विधि के अंतर्गत 'रिलेक्स' करते समय सर्वप्रथम बायें पैर से शुरूआत की जानी चाहिए। पांव को हाथ की दोनो हथेलियों के बीच रखकर शुरुआत में हल्के दबाव के साथ नीचे से ऊपर की तरफ हल्की मालिश करें जिससे रक्त संचरण की शुरूआत हो सके। इस प्रक्रिया मे मालिश के दौरान एक हाथ आगे की तरफ चलता रहे और दूसरा धीरे-धीरे पीछे की तरफ आये। शुष्क त्वचा होने की दशा में आप 'Olive oil' तेल का प्रयोग भी कर सकते हैं। ऐड़ी के मालिश करते समय पांव को थोड़ा ऊपर उठाएं और चारों तरफ उपर्युक्त प्रक्रिया के अनुसार मालिश करे।

इस विधि के अन्तर्गत उपर्युक्त राहत विधि संख्या एक के अनुसार थोड़ा तीव्र गति से उसी प्रक्रिया को दोहराया जाना चाहिए। इसमें नाड़ी संस्थान को बल देने के लिए मालिश का दौर ऊपर से नीचे की तरफ भी दिया जाना चाहिए।

इस विधि मे पैर की जकड़न एवं सूजन दूर करने के लिए पैर को आगे एवं पीछे ऐड़ी को पकड़ते हुए आहिस्ता आहिस्ता घुमाएं। यह ध्यान रखा जाना चाहिए कि पांव को जमीन से थोड़ा ऊपर उठाये रखे।

उपर्युक्त विधि के अन्तर्गत पांव को हाथ मे लेकर अपने अंगूठे द्वारा दबाव देते हुए चारो तरफ घुमाया जाना चाहिए। इससे प्रतिबिम्ब केन्द्र सक्रिय होगे और प्राणऊर्जा का प्रवाह निर्विघ्न चलने लगेगा। आकृति सं. 68 मे जो दबाव दिया जाएगा उससे हृदय वाहिनियो, थायराइड और श्वसन क्रिया को सक्रियता मिलेगी। आकृति संख्या 69 मे दिये जाने वाले दबाव से गठिया एवं जोड़ों के दर्द मे राहत पहुंचेगी।

आकृति सं. 70 के अन्तर्गत मरीज के दाएं पैर को पकड़कर अपनी बायी जाघ पर इस प्रकार रखे कि पांव की अंगुलिया एवं अंगूठे खुले रहे। इस विधि में अंगूठे से अंगुलियो तक बारी-बारी से पहले थोड़ा मालिश करे, बाद मे हल्के रूप से प्रेशर देने के साथ आगे की तरफ खीचे, फिर चारो तरफ मालिश करें। इस प्रक्रिया से श्वास सम्बन्धी रोग जैसे—साइनस, खांसी, जुकाम, अस्थमा इत्यादि व्याधियो मे राहत मिलती है।

आकृति सं 71 में दी गई विधि से रीढ़ की हड्डी को सक्रियता मिलती है। कमर, पीठ एवं मांसपेशियो के दर्द मे यह विधि अत्यन्त उपयोगी है।

सूर्य केन्द्र (Solar Plexus Relaxation) :—

उपर्युक्त विधि के अन्तर्गत शरीर की महत्वपूर्ण प्राण ऊर्जा का प्रवाह निर्बाध रूप से मस्तिष्क की ओर प्रवाहित होता है जिससे मनुष्य की जटिलतम समस्याए जैसे मानसिक तनाव एवं निष्क्रियता सम्बन्धी व्याधियो में आश्चर्यजनक रूप से राहत मिलती है।

अंगूठे से दबाव (Thumb Pressure) :—

इस विधि के अन्तर्गत पांव के तलुए में ऊपर से नीचे की ओर प्रेशर दिया जाता है। यह ध्यान रहे की अंगूठा बिल्कुल सीधा रखकर दबाव दे। इस प्रक्रिया से हृदय एवं यकृत के सभी संस्थान सक्रिय रहते हैं।

नाभिचक्र से सम्बन्धित राहत विधि :—

इस विधि के अन्तर्गत नाभिचक्र से सम्बन्धित समस्त व्याधियो मे राहत मिलती है इसमें अगूठे को थोड़ा मोड़कर सम्बन्धित केन्द्रों पर दबाव देते है नाभिचक्र के

साथ-साथ श्वास, दमा जैसी समस्याओं का भी निवारण होता है।

एड़ी के घुमाव की प्रक्रिया :—

इस विधि के अन्तर्गत एड़ी के चारों तरफ प्रेशर दे जिससे शारीरिक थकान एवं घुटनो के दर्द में राहत मिलती है। इस विधि में एड़ी से पिंडलियों तक दबाव दिया जाना चाहिए।

पाचन संस्थान, गुर्दे सम्बन्धी व्याधियों में राहत पहुंचाना :—

इस विधि में चित्र के अनुसार पांव मे मुट्ठी के द्वारा 'आटा गूंथने की' विधि द्वारा दबाव दिया जाता है। इससे शरीर के पाचन संस्थान के समस्त रोगों (Urinany Problems) गुर्दे सम्बन्धी रोगों में अत्यन्त लाभप्रद है।

पुरुषों की गुप्त व्याधियों में राहत विधि :—

इस विधि के अन्तर्गत पांव को एक हाथ से पकड़कर एड़ी से पंजे के चारो ओर दबाव दिया जाता है जिससे पुरुषजनित व्याधियों में सुधार होता है।

स्त्रीजनित व्याधियों में राहत विधि :—

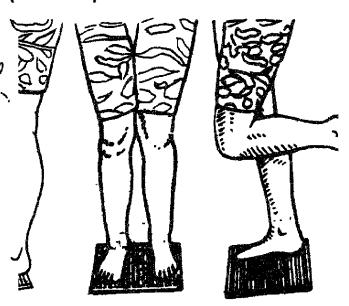
इस विधि के अन्तर्गत उपर्युक्त प्रक्रिया के अनुसार दबाव देने से स्त्री रोगो जैसे—मासिक धर्म में रुकावट, अधिकता, श्वेत प्रदर, थकान इत्यादि रोगों मे राहत मिलती है।

***

शर चिकित्सा में प्रयुक्त होने वाले प्रमुख उपकरणों का परिचय एवं उपयोग

uction & Utility of Acupressure Instruments)

.ार चिकित्सा में कुछ विशेष उपकरणों की सहायता से रोगी स्वयं ही : कर सकते हैं। ये उपकरण जहाँ आसानी से काम में लाए जा सकते तथा वैज्ञानिक दृष्टिकोण से बने होने के कारण दुष्प्रभाव भी नहीं छोड़ते। पकरण निम्न प्रकार हैं।

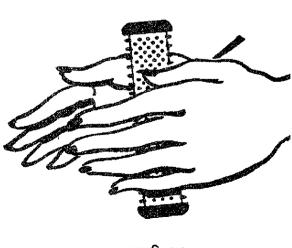
- (Power Mat) :—

आकृति 78

पॉवर प्लेट पर दोनो पाँव रखकर 4-5 मिनिट कदमताल (Walking) करने से पांवो के सभी प्रतिबिम्ब केन्द्र स्वतः ही दबते हैं। सुबह पांच मिनट किया गया कदमताल आधे घंटे के व्यायाम के बराबर सिद्ध होता है।

इसके नियमित प्रयोग से—

1. शरीर में नई ऊर्जा एवं स्फूर्ति का संचरण होता है।
2. शरीर में रक्त-संचरण का प्रवाह निर्बाध बना रहता है।
3. शरीर की रोग प्रतिरोधात्मक शक्ति प्रबल होती है।
4. इसके नियमित प्रयोग से अन्तःस्रावी ग्रंथियाँ नियमित एवं सुचारु रूप से कार्य करती हैं जिससे शारीरिक संतुलन स्थापित होता है।
5. एड़ी-पंजों के दर्द, शियाटिका, घुटनों के दर्द तथा मोटापा कम करने में विशेष उपयोगी है।

एनर्जी रोलर (Energy Roller) :—

जिस तरह पांवो में प्रतिबिम्ब केन्द्र होते हैं उसी तरह हाथों में भी शरीर के सभी अंगों के प्रतिबिम्ब केन्द्र स्थित होते हैं। एनर्जी रोलर को दोनो हथेलियो के बीच रखकर घुमाने से यह सभी प्रेशर बिंदुओं पर समुचित दबाव दे देता है जिससे हाथों की अकड़न, साइनस, सिरदर्द आदि व्याधियों के उपचार में सहायता मिलती है। पिरामिड प्लेट पर कदमताल करते समय भी इसे हथेलियों में घुमाना चाहिए। यह थकान और दर्द को तुरंत दूर करने के साथ ही प्रतिप्रभाव-रहित भी है

आकृति 79

स्पाइन रोलर (Spine Roller with 4 Magnets) :-

आकृति 80

चुम्बकीय स्पाइन रोलर में लगे मेग्नेट दर्द को दूर करने के साथ ही शरीर में चुम्बकीय ऊर्जा का संचार भी करते हैं जो रक्त-संचरण को निर्बाध बनाने मे सहायक हैं। मरीज को उल्टा लिटा कर इस रोलर को कमर में चलाने से सरवाईकल स्पोन्डोलाइसिस, कमर में दर्द एवं जकड़न, शियाटिका दर्द में विशेष आराम मिलता है। इसी प्रकार पांवो के पृष्ठ भाग में नितंबो से पिंडलियो तक चलाने से यह रोलर घुटनों के दर्द तथा पिंडलियों के दर्द में भी लाभदायक सिद्ध होता है।

फुट रोलर (कृष्ण चक्र) (Foot Roller) :-

आकृति 81

पाँवों के बिंदुओं पर सामान्य प्रेशर देने के लिए फुट रोलर का उपयोग किया जा सकता है। कुर्सी अथवा स्टूल पर बैठकर रोलर को जमीन पर रखकर पांवो के पंजे इस पर चलाते हैं जिससे पंजो को उपयुक्त प्रेशर भी मिल जाता है तथा स्फूर्ति बनी रहती है।

मैजिक माला/सेल्फ मसाजर (Magic Massager) :—

जैसा कि नाम से विदित है इसकी सहायता से आप स्वयं ही शरीर पर मसाज कर सकते हैं। गर्दन की अकड़न, कन्धे एवं पीठ दर्द, हाथ मे दर्द, बाजू की नस का दर्द हटाने के लिए इसे दोनों हाथों में थामकर गर्दन, कंधे व पीठ के चारों ओर घुमाया जाता है।

आकृति 82

पिरामिड रोलर Roller/ Energy Handle) :—

इस रोलर को सहायता से पकड़कर पैरो के पंजो तथा हाथ से सभी प्रकार के द आराम मिलता है। बच्चे विकास के लिए एन हैण्डल द्वारा पूरे शरी की जा सकती है। पोलियो की चिकित्सा

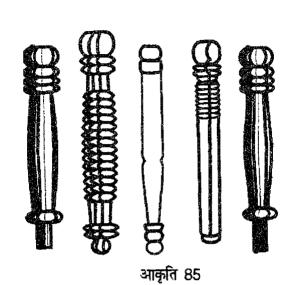
र (Multiplex Massager) :–

(व्हील्स से बना यह रोलर चलने में बड़ा लचीला होने के का
ो भाग पर आसानी से चलाया जा सकता है। कमर दर्द, गठि
, कन्धे एवं बाजू के दर्द के उपचार के साथ-साथ यह शरीर
करता है जिससे तनाव एवं थकान दूर होकर नई स्फूर्ति का सं
। तात्पर्य है कि पाँच से दस मिनट इस रोलर को चलाकर श
थकान को मिटाया जा सकता है।

आकृति 84

ıy) :–

पैरों के तलुवे में स्थित प्रतिबिम्ब केन्द्रों पर प्रेशर देने के लिए
उपकरण है। इस क्षेत्र मे विभिन्न प्रकार की जिम्मियाँ उपलब्ध
गी सिद्ध हो सकने वाली जिम्मी का चित्र नीचे दिया गया है।
प्रेशर पाइन्ट्स पर दबाव दिया जाता है तथा मोटे पाइन्ट वाले
इन्ट दबाए जा सकते हैं। इसे एनर्जी रोलर की तरह हथेलियों के
सकता है

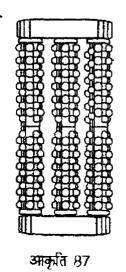
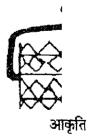
आकृति 85

न जिम्मी (Cervical Jimmy/Mini Roller) :—

रामिड रोलर से छोटी होने के कारण इसे
से शरीर के नाजुक हिस्सों (गर्दन के पीछे,
पैरों की अंगुलियों, कलाई तथा एड़ी) पर
से चलाया जा सकता है।

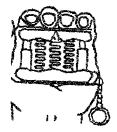
ल (Wonder Roll / Small / Big /

:—

आकृति 87

आकृति

तीन रोलरो
लकड़ी के बॉक्स
होता है जिस प
गठिया और पैराल

ी लाभ प्राप्त किया जा सकता है। पोलियो के वे रोगी जो पिरामिड प्लेट पर होने में असमर्थ हों वे भी कुर्सी पर बैठकर वंडर रोल का उपयोग कर सकते

र एक्सरसाइजर :—

कलाई में दर्द होने अथवा हथेलियों और अँगुलियों की अकड़न दूर करने के लिए फिंगर एक्सरसाइजर को चित्रानुसार दबाना चाहिए।

It is very useful in case of tension, headache and nervousness.

आकृति 88

पॉवर चुम्बक (Low Power Magnet—Pair) :—

रोगियों की सुविधा के लिए इस चुम्बक के अलग-अलग ध्रुवों को लाल एवं रंग से प्रदर्शित किया गया है। लाल रंग वाला भाग दायीं ओर तथा नीले रंग ा भाग शरीर के बायी ओर के प्रभावित हिस्सों पर लगाने से आराम मिलता है। क का लाल रंग वाला भाग उत्तरी ध्रुव तथा नीला भाग दक्षिणी ध्रुव को इंगित ा है।

बकीय नी केप (Knee Cap—Pair) :—

घुटनो के दर्द, घुटनों का आर्थराइटिस तथा जोड़ों की सुजन होने पर इस बेल्ट को घुटनो पर 15-20 मिनट बाँधने से कुछ ही दिनों में विशेष लाभ मिलता है।

आकृति 89

बेक एण्ड बेली बेल्ट (Magnetic Belt) :—

पेट और कमर सम्बन्धी तकलीफों के लिए विशेष प्रकार का चुम्बकीय बेल्ट होता है जिसे 15 30 मिनट तक बांधा जाता है। पेट सम्बन्धी विकार, गैस, ों मे सूजन, भूख न लगना, मोटापा कम करने के लिए पेट की तरफ करके बाँधते हैं तथा कमर दर्द होने पर कमर मे बाँधते हैं।

आकृति 90

चुम्बकीय हार (Naklace) :—

आकृति 91

It is valuable in treatment of :—

1. CERVICAL
2. NECK
3. THYROID
4. THYMUS
5. BREATHING
6. HEART

रक्तचाप बैल्ट (B.P. Watch) :—

रक्तचाप बैल्ट, उच्च एवं निम्न रक्तचाप दोनों को सामान्य करने मे मदद करत है। उच्च रक्तचाप में बैल्ट को दाहिने हाथ की कलाई पर बांधें।

निम्न रक्तचाप मे—बैल्ट को बाएँ हाथ की कलाई पर बांधें।

उपयोग का समय—रक्तचाप सामान्य होने तक नियमित प्रयोग करे। आवश्यक पड़ने पर पूरे दिन भी पहन सकते हैं।

Note : This watch does not display your Blood Pressure time.

चुम्बकीय चश्मा (Magnetic Eye Care) :—

It is valuable for—

Old Age Sight

Hyper Sensitivity to light.

Near Sightedness

Far Sightedness

General Relaxation

Use—15 Minutes two times a day, open or closed Eyes.

आकृति 92

ट्विस्टर (Body Weight Reducer Disk—Magnetic) :—

Twistwer is a light weight, durable, modern exerciser, and best to remove excess fat.

MASSAGER With Heat/ without Heat.

विभिन्न एक्युप्रेशर पाइन्ट्स पर इस वाइब्रेटर की सहायता से उपचार दिया जा सकता है। विशेष तौर पर मसाजर विद् हीट का उपयोग जोड़ों की सूजन तथा कमर दर्द आदि दूर करने मे भी किया जाता है।

SAFETY MASSAGER FOR :—

- Body Aches
- Stiff Joints.
- Strains, Cramps.
- Trimming the Waist line
- Falling Hair
- Improves Bust line
- Insomnia
- Sprains

अध्याय-19

रोग और उनके उपचार बिन्दु

(Pressure Points for Diseases)

क्र.सं.	रोग	संबंधित दाब बिन्दु
1	अपेन्डिक्स	आईवाल्व, डायफ्राम, सोलर
2	अेलर्जी	आईवाल्व, अेड्रीनल, एक्स पोईन्ट्स, पिच्युटरी
3	एनीमिया	स्प्लीन, लीवर, के. यू. बी.
4	अेनजाईना पेक्टोरिस	हार्ट, लंग्ज, सरवाईकल, थोरेसीक, सीगमोईड, डायफ्राम, सोलर
5.	आर्थराईटिस	जी पी. रेफरल, रिप्लेक्स एरिया, जी. एल. 4
6	अस्थमा	चेस्ट पोइन्ट लंग्ज, एड्रीनल, आईवाल्व, डायफ्राम, ब्रोन्कल ट्यूब, इन्ट्रास्केप्यूलर, सायनस नेक पीट पॉइंट्स
7	टखने की सूजन	किडनी, अेड्रीनल, लीफ रेफरल एरिया
8	मुहांसे	लीवर अेड्रीनल, जी. एल 4, के. यू. बी , इन्टस्टाईन, थायराईड, डायफ्राम
9	अेडीनोईड्ज	एम. ओ., ग्रेट टो, पिच्युटरी, लिम्फ, थाईराईड, पेराथायराईड
10.	अल्कोहोलिज्म	लीवर, पेन्क्रीयाज, डायफ्राम, अेड्रीनल
11.	हाथ में दर्द	एम. ओ. नेप, सोल्डर, स्केप्युला, आर्मपोईन्ट, सरवाईकल
12	स्त्रियों की छाती में दर्द	चेस्ट लंग्स, मेटाटारसल पिच्युटरी थायराईड

ब्लेडर, किडनी प्रोब्लम	के यू. बी , अेड्रीनल, लोअर स्पाईन, लिम्फ, जी एल. 4
बर्साईटिस सर्व्हायकल स्पॉन्डेलायटीस	ओक्सीपीटल, स्केप्युला, हाथ के पोईन्ट, सोल्डर का रिफ्लेक्स, स्प्लीन, टो-ट्वीस्टींग
बिस्तर गीला करना Bed Wetting	के. यू बी , डायफ्राम, लोअर स्पाईन, पिच्युटरी
चेहरे का पक्षाघात	सरवाईकल, सायनस, बिग टो, ओक्सीपीटल
श्वास मे बदबू	स्टमक, लीवर, इन्टेस्टाइन, सायनस, लिम्फ, बिग टो
ब्रोन्काईटीस	चेस्ट, लंग्ज, आईवाल्व, अेड्रीनल, डायफ्राम
कोलन सूजन कोलायटीस	कोलन, लीवर, अेड्रीनल, लोअर स्पाईन, डायफ्राम, गालब्लेडर, लंग्ज
कब्जिअत कॉन्स्टिपेशन	अेड्रीनल, लोअर स्पाईन, सीग मोईड, आई वाल्व, स्टमक 9 पोइन्ट्स, डायफ्राम
क्रेम्प्स	ओक्सीपीटल, सोल्डर, स्केप्युला, हिप, नी। शियाटीका, लोअर स्पाईन, पेराथायराईड, अेड्रीनल।
पीठ मे दर्द	मेटाटारसल, डायफ्राम, जी. एल. 4
मोतियाबिन्द, कॅटॅरॅक्ट	आई रीफ्लेक्स, नेक एरीया सरवाइकल, आँख के लोकल पॉइंट्स, टो पॉइन्ट्स, के. यू. बी.
बच्चो में श्वास की तकलीफ, आवाज सी आने लगे	डायफ्राम, ब्रोंकीअल ट्युब, आई वॉल्व, चेस्ट लंग्ज, ओल टोज।
सीरोसीज़, लीवर का सीरोसीज	लीवर, गाल ब्लेडर, जी. एल. 4, एक्सपोइन्ट, पेनक्रीयाज़, स्प्लीन, आई वॉल्व, लिम्फ, के. यू बी.
सरवाइकल स्पोन्डेलाईसीस	सोल्डर पॉइन्ट्स, आर्म पॉइन्ट्स, इन्ट्रेस्कोप्युला, स्प्लीन टो-ट्वीस्ट, रिफ्लेक्स पॉइन्ट्स
पॉव के तलवे मे कील कॅलिसिस कॉर्न	जी एल. 4, एक्स पॉइन्ट्स
सर्दी (Cold)	चेस्ट, लंग्ज, अेड्रीनल, इन्टेस्टाईन, पिच्युटरी, लिम्फ
बच्चों के रोग	ऑल ग्लैण्ड्स, डायफ्राम

मानसिक उदासी डिप्रेशन	पिच्युटरी, स्लीन, सोलर, लीवर, डायफ्राम, एड्रीनल
डायबीटीज़ या मधुमेह	जी. एल. 4, पेनक्रीयाज, लीवर, गाल ब्लेडर, इन्टेस्टाइन
पाचनतंत्र की तकलीफ	लीवर, गाल ब्लेडर, स्टमक, इन्टेस्टाइन, डायफ्राम
सूखी और तैलीय त्वचा	थायराईड, अेड्रीनल
पेचिश (डायोरिया)	अेसेन्डींग कोलन, डायफ्राम, लीवर, ट्रान्सवर्स कोलन, अेड्रीनल
बहरापन—कान के रोग (डेफनेस)	इयर रिफ्लेक्स, सरवाईकल, नेक की बगल, बिग टो की बगल, थ्रोट, नेक
चक्कर आना	नेक की बगल, इयर रिफ्लेक्स, सरवाईकल
दिमागी सूजन (एन्सेफेलायटीस)	जी. एल. 4, लिम्फ, ब्रेन पॉइन्ट्स
फिट्स, (एपिलेप्सि)	डायफ्राम, कोलन, आईवाल्व, स्पाईन, नेक का भाग, जी. एल 4, एम ओ.
एडेमा, फ्लुईड रिटेन्शन	लिम्फ, के. यू. बी., एड्रीनल
आँख की प्रोब्लम	आई रिफ्लेक्स, नेक एरिया, सरवाइकल, ओल टोज़, पिच्युटरी, के. यू. बी.
कान का दर्द	इयर रिफ्लेक्स, ओल टोज, थ्रोट, नेक
एग्झिमा	लीवर, अेड्रीनल, कीडनी, इन्टेस्टाईन, थायरड, डायफ्राम
मूर्छित होना	पिच्युटरी, एम. ओ., नोज पोइन्ट, सायनस लास्ट थ्री पॉइन्ट्स, लोकल
नसों में चरबी की पर्तें जमना	थायरोइड, पूरे पाँव के तले में पॉइन्ट्स, जी. पी.
गेस	इन्टेस्टाईन, स्टमक, लीवर, गाल ब्लेडर, पेन्क्रीयाज
हड्डी का टूटना - अस्थिभंग	रिफ्लेक्स व रेफरल पोइन्ट्स

ग्लुकोमा	आईरिफ्लेक्स, थ्रोट, नेक, ओल टोज, के. यू. बी., डायफ्राम
पित्ताशय की पथरी	थायराइड, गाल ब्लेडर, लीवर
गाउट	के. यू. बी. और रिफ्लेक्स पोइन्ट्स
सिरदर्द	बिग टो, सायनस, सोलर, स्पाइन, जी. एल. 4, क्राउन पोइन्ट्स, एक्स पॉइन्ट्स
हेमरोइडस (पाईल्स)	हेमरोइडस, एड्रीनल, सीगमोइड, लोअर स्पाइन रेक्टम
हीप (कुल्हे)	हीपनकल, फिफ्थ जोन, मेटाटारसल
हाईपरटेन्शन, हाई ब्लड प्रेशर	डायफ्राम, के. यू. बी., पिच्युटरी, एड्रीनल, थायराईड, एम. ओ. नेप, इयर, फोर्क, थ्रोट, मिड फिन्गर
हिचकी	डायफ्राम, इन्टेस्टाईन, स्टमक, सोलर, इन्ट्रास्केप्युलर
हृदय रोग, हार्डनिंग ऑफ आर्टरीज	लंग्ज, हार्ट, डायफ्राम, सोलर गेस्ट्रोइन्टेस्टाईन
हाई कोलेस्ट्रोल (High Cholestrol)	थायराईड, लीवर, गाल ब्लेडर
लो बी. पी. (हायपो-टेन्शन)	एड्रीनल, पिच्युटरी, थायराइड, एम. ओ. ओक्सी-पीटल, शोल्डर, सोलर
हे-बुखार	आईवाल्व, ओल टोज, जी. एल. 4, कोलन, चेस्ट, लंग्ज, एक्स पाइन्ट
पेट का हर्निया	ग्रोईन एरिया, कोलन, एड्रीनल
हीयेटस हर्निया	डायफ्राम, स्टमक, एड्रीनल
हाईपोग्लोसेमीया	पेन्क्रीयाज, लीवर, गाल ब्लेडर, डायफ्राम
युटरस का ऑपरेशन	ओड्रीनल, थायराइड, पिच्युटरी, युटरस, ओवरीज, फेलोपाईन ट्यूब
अपचन	इन्टेस्टाइन, लीवर, गाल ब्लेडर, डायफ्राम, स्टमक
वीर्यशक्ति में कमी (इंपोटैन्सी)	एक्स पाइन्ट, जी. एल. 4, स्पाइन, स्पाइन रिफ्लेक्स, डायफ्राम

बञ्जरता (इन्फर्टिलिटी)	एक्स पॉइन्ट्स, स्पाईन रिफ्लेक्स, जी एल 4, डायफ्राम
अनिद्रा (इन्सोम्निया)	सायनस, स्पाईन रिफ्लेक्स, ओल ग्लेन्ड्स, एक्स पाइन्ट
पीलीया - (जॉन्डिस)	लीवर, गाल ब्लेडर, स्प्लीन, स्टमक, आईवाल्व
रोग संक्रमण इन्फेक्शन	अेड्रीनल, जिस भाग को लगा उसके लिम्फ, जी. एल 4
पथरी, किडनी स्टोन	के. यू. बी , डायफ्राम, पेराथाइराईड
कमर का दर्द	बेक प्रेशर, के. यू बी., स्पाइन रिफ्लेक्स
मेनीमजाईटीस	बिग टो, हील, स्पाईन, जी. एल 4, एक्स पाइन्ट, लिंफ
रीढ़ में/दिमाग में रक्त जमना	स्पाईन, जी. एल 4, एक्स पाइन्ट, डायफ्राम, लिम्फ, ब्रेन पोइन्ट
मायोस्थेनीया ग्रेवीस	अेड्रीनल, पेराथाइराईड, बेक प्रेशर
माईग्रेन	हेड पोइन्ट, बिग टो, लीवर, गाल ब्लेडर, सोलर
स्त्रीरोग (मेनोपॉज)	जी एल 4, थायराईड, डायफ्राम, लोअर स्पाइन, एक्स पाइन्ट
आर्तव एंठन (मेन्स्टुअल क्रैम्प)	एक्स पाइन्ट, लीम्फ, लोअर स्पाईन, के. यू बी , डायफ्राम
आर्तव प्रोब्लम (मेन्स्टुअल प्रोब्लेम)	एक्स पाइन्ट, लिम्फ, प्लेटफार्म पोइन्ट, स्पाइन रिफ्लेक्स
नाक के रोग	सायनस पोइन्ट्स, बिग टो, आईवाल्व, अेड्रीनल, चेस्ट लंग
पेरालीसिस	सारे पोइन्ट्स, रेफरल रिफ्लेक्स, लोकल
हाथ पाँव में पसीना	ओल ग्लेन्ड्स, लोअर इन्टेस्टाइन, किडनी, डायफ्राम, हार्ट
न्युमोनिया	लिम्फ, आईवाल्व, एड्रीनल, डायफ्राम, चेस्ट, लंग्ज, इन्टेस्टाईन
पारकीसन	आल ग्लेण्ड्स, स्पाईन, लिम्फ, जी. एल 4, लम्बर स्पाइन एक्स पाइन्ट
पाँव के दर्द	10+3+8+3 चौथा पाचवां ग्रोन मेटाटारसल

84.	सोरायसीज (Psoriasis)	थायराईड, अेड्रीनल, लीवर, इन्टेस्टाईन, डायफ्राम, के. यू बी., जी एल. 4, एक्स पाइन्ट, दूसरा ओन, रिलॅक्स
85.	प्लुरसी	लिम्फ, आईवाल्व, अेड्रीनल, जी. एल. 4, एक्स पाइन्ट, डायफ्राम, चेस्ट, लग्ज, गैस्ट्रो इन्टेस्टाईन
86	प्रोस्टेट प्रोब्लम	एक्स पॉइंट्स
87.	त्वचा पर खुजली	अेड्रीनल, लीवर, डायफ्राम, के. यू बी
88.	सायनोसायटिस	सायनस पॉइंट्स, ओलटोज, आईवाल्व, अेड्रीनल, चेस्ट, लंग्ज
89.	मसल्स मे वाइब्रेशन्स, स्पाझम्	हार्ट, लंग्ज, सरवाईकल, थ्योरेसीक, सीगमोइड, कोलन, डायफ्राम
90	स्लिप्ड डिस्क	रिफ्लेक्स स्पाईन, बेक प्रेशर
91	अंगो पर दबाव के कारण दर्द (Strain)	रिफ्लेक्स एरिया पाँव पर और रेफरल एरिया
92	अवयवों की क्रिया का बंद होना, ब्रेन हेमरेज के चिह्न (Stroke)	टोप ऑफ बिग टो, अपोजीट (रेफरल एरिया), साइड के रीरिफ्लेक्स पॉइंट्स
93	आँख की बिलनी, स्टाय	आइ रिफ्लेक्स, सारे टो के नेक एरिया
94.	कन्धे के दर्द	शोल्डर लोकल रिफ्लेक्स, टो रोटेटिंग टो ट्वीस्टिंग
95.	शारीरिक इन वोलेन्टरी कंपी	स्पाईन, डायफ्राम, एक्स पॉइंट्स
96.	गले में दर्द - काकल (टॉन्सील, सोअर थ्रोट)	लिम्फ, ओल टोज, नेक, सरवाईकल, अेड्रीनल
97	अनियमित धड़कन, कम, अधिक अचानक हो	अेड्रीनल, हार्ट, सरवाईकल, थोरोसीक, थायराईड
98.	कान में आवाज	इअर रिफलेक्स, सरवाइकल, बिग टो, नेक
99.	चेहरे पर आगे के भाग मे नर्व का दर्द	नेप ओरीया, सरवाईकल, डायफ्राम, के. यू. बी

100.	त्वचा पर लाल व ब्राऊन दाग पड़ना	जी. एल. 4, इन्टेस्टाईन, लीवर, होल स्पाईन, एक्स पॉइंट्स
101.	जबान, जीभ	बिग टो, नेक एरिया, जीभ के पोइन्ट
102.	दांत में दर्द	ओलटोज, नाखून के नीचे के हिस्से में दबाना
103.	शियाटिका	10+3+8+3 के साथ कोसीक्जियल, शियाटीका रिफ्लेक्स, हीप पोइन्ट्स, लिम्फ, लम्बर स्पाइन, के यू. बी., हेमोरोईड्स, एक्स पॉइंट्स
104	पीठ के बीच के भाग मे दर्द	स्पाइन, सोलर प्लेक्सस्
105	अल्सर	अल्सर रिफ्लेक्स, डायफ्राम, स्टमक, स्प्लीन, इन्टेस्टाईन, लिम्फ
106	रक्त में नाइट्रोजन टोक्सीन युरेमिक	के यू. बी., एड्रीनल, लिम्फ
107	वर्टीगो	इअर रिफ्लेक्स, नेक एरिया, सरवाईकल, बिग टो
108.	वेरीकोज वेन्स	कोलन, लीवर, एड्रीनल, रेफरल एरिया हाथ पर, हेमरोईड्स
109.	कफ होना, वमन या उल्टी, मोशन सिकनेस (Vomitting)	इअर रिफ्लेक्स, डायफ्राम, सोलर, गेस्ट्रो-इन्टेस्टाईन, नेक, स्पाईन
110.	श्वेत प्रदर (White Discharge)	प्लेटफोर्म पोइन्ट, एक्स पोइन्ट्स, के. यू. बी., लिम्फ

आहार चिकित्सा (Dietics-Cure)

अन्न ब्रह्म का मानव देह से सम्बन्ध :

मानव को प्रभु का पुण्य प्रसाद माना गया है। किसी ने कहा है कि 'जैसा खाते हैं अन्न, वैसा होता है मन' अतः जब आहार शारीरिक, मानसिक और आध्यात्मिक पुष्टि का साधन छोड़कर केवल इन्द्रिय-तृप्ति और विलास का साधन बन जाता है, तब वह खाने वाले को ही खा जाता है। अर्थात् उसका आध्यात्मिक पतन प्रारम्भ हो जाता है। वस्तुत. आज के भौतिकवादी युग में यही हो रहा है। यही कारण है कि मानसिक शांति से हम भटक रहे हैं। वस्तुतः हमें जीवन मे जीने के लिए खाना है न कि खाने के लिए जीना है। स्वस्थ शरीर बनाए रहने के लिए उचित मात्रा मे सात्त्विक आहार लेना जरूरी है।

भारतीय संस्कृति में वैदिक काल से ही संतुलित जीवन जीने का महत्व देते हुए अन्न को देवताओं की तरह पूज्य माना गया। किसी भी अन्न को हमारी शास्त्रीय मर्यादाओं में अपमानित करने की बात नहीं बताई गई बल्कि उसके प्रति पूजाभाव दर्शाया गया है। भोजन हमारे लिए कुछ भी खा-पीकर पेट भरना नहीं अपितु यज्ञ समान है।

हमारे प्राचीन धर्मग्रन्थों में महर्षि मनु ने मनुस्मृति में पंच महायज्ञों की पूजा करने की राय दी गई है। ये पंच महायज्ञ है—ब्रह्मयज्ञ, पितृयज्ञ, भूतयज्ञ, देवयज्ञ एवं मनुष्ययज्ञ।

वेद शास्त्र अपने धर्मग्रन्थ ज्ञान-विज्ञान का साहित्य पठन-पाठन, संध्या उपासना, गायत्री मंत्र या अपने इष्ट की ब्रह्म या ऋषि यज्ञ है

नित्य यथाशक्ति श्राद्ध, तर्पण पितृ यज्ञ है। हवन देव यज्ञ है। बलि भूत यज्ञ है और अतिथि सत्कार मनुष्य यज्ञ है। जितना भी सम्भव हो उतना इनमे से करने के बाद ही शांतिपूर्वक भोजन करना चाहिए।

कई लोग शंका-भरा प्रश्न करते है कि उनकी जरूरत क्या है। मनुस्मृति मे महर्षि मनु ने स्पष्ट कहा है कि 'गृहस्थ के घर नित्य प्रति चूल्हा, चक्की, झाडू चलने फिरने से, जलने, दबने आदि से मरने वाले प्राणियों के पाप की निष्कृति के लिए इन क्रियाओ की पर्याप्त महत्ता है। इसलिए ये हर रोज आवश्यक हैं। देव यज्ञ से देवताओं की, मनुष्य यज्ञ से मनुष्यों की और भूत यज्ञ से भूतो की परितृप्ति भी होती है। पितृ तर्पण मे भी देवता, ऋषि, मानव समुदाय, पितर और सम्पूर्ण भूत प्राणियो को जलदान करने की विधि है। हमारे यहाँ की इस परम्परा से पहाड, वनस्पति और शत्रु आदि तक को भी जल देकर तृप्त किया जाता है।

देव यज्ञ में अग्नि मे आहुति दी जाती है। वह पर्यावरण स्वस्थ करती हुई सूर्य को प्राप्त होती है और उसी के बल से सूर्य से वर्षा, वर्षा से अन्न, वनस्पति, फल-फूल और पूजा की उत्पत्ति भी होती है।

भूत यज्ञ मे अग्नि, सोम, इन्द्र, वरुण, मरुत तथा विश्वदेवों के निमित्त आहुतियाँ एवं अन्नग्रास की बलि दी जाती है। सर्वत्र सुख-शांतिमय वातावरण के लिए सभी की परितृप्ति का भाव इसमें समाहित है।

मनुष्य यज्ञ में अपने घर आए हुए अतिथि, साधु-सन्त, विद्वान आदि का सत्कार करके यथाशक्ति भोजन कराया जाता है। यदि भोजन कराने की सामर्थ्य नही भी हो तो बैठने के स्थान, आसन, दूध, चाय, जल प्रदान करके मृदु वचनो से उनका कुशल क्षेम पूछकर स्वागत अवश्य करना चाहिये।

सबको परितृप्त करके भोजन करना ही अभीष्ट है। यही विश्व-बंधुत्व की भावना को जीवन में व्यावहारिक रूप से परिपुष्टकारी एवं मंगलकारी है। भगवान श्रीकृष्ण ने गीता मे एक जगह कहा है कि—

हमें स्वाध्याय और अपनी पारिवारिक धर्म-परम्परा के अनुसार पूजा-अर्चना तथा अन्य धार्मिक अनुष्ठानो से ऋषियो और देवताओ का तर्पण और श्राद्ध से पितरो का, अन्न से मनुष्यो का और बलि कर्म से सम्पूर्ण भूत प्राणियो का यथा-योग्य स्वागत सत्कार करना चाहिये। सबको भोजन देने के बाद शेष बचा हुआ आहार यज्ञशिष्ट होने के कारण अमृत के समान तृप्तिकारी माना गया है हमारी जीवन पद्धति में

सनातन व्यवस्था मे ऐसे ही अन्न को खाने योग्य माना गया है जो भावना से सबका हित चाहने वाला हो, वही हितकारी है। इस पद्धति में स्वार्थ त्याग की बात तो पद में ही बतलायी गयी है।

आहार शुद्धि :—

हम कब क्या खाते है, कितना और कैसे खाते हैं, वह किस तरह से अर्जित है। इन सभी बातो पर भी ध्यान रखना जरूरी है। छान्दोग्य उपनिषद मे कहा गया है कि व्यावाहारिक रूप से देखें तो प्राणी के नेत्र, श्रोत, मुख आदि के द्वारा आहारणीय रूप, शब्द रस आदि विषय रूप आहार से मन की शुद्धि होती है।

भोजन कैसे करें :—

पश्चिमी सभ्यता के अंधानुकरण में हम जल्दी-जल्दी में जो मिला, जैसा मिला, जैसे-तैसे खा-पीकर काम पर चल देते हैं। इस तरह लिया गया आहार हमे स्वस्थ नही रहने देता। हमारे यहां शांत चित्त से, प्रसन्न मन से नित्य कर्मो से निपटकर अपने इष्टदेव को नैवेद्य अर्पित करके उनके प्रसाद के रूप मे ही भोजन प्रसाद स्वीकारने का विधान है।

प्रारम्भ मे इन तीन मंत्रों से तीन ग्रास निकालने की व्यवस्था है। शांत मन से—

ॐ भूपत्ये ब्रह्म
ॐ भूवन पतये स्वाहा,
ॐ भूतानां पतये स्वाहा॥

उच्चारित करके तीन ग्रास निकाल ले। इसका तात्पर्य है कि सम्पूर्ण पृथ्वी के स्वामी और चतुर्दश भुवनो के स्वामी तथा चराचर जगत के सम्पूर्ण प्राणियो को मैं यह अन्न प्रदान करता हूँ।

इसके बाद इन पाच मंत्रांशों को बोलकर आहार पंच आहुति के रूप में लेना चाहिए—

ॐ प्राणाय स्वाहा
ॐ अपनाय स्वाहा
ॐ व्यानाय स्वाहा
ॐ उदानाय स्वाहा
ॐ समानाय स्वाहा

यदि संभव हो तो लवण रहित पांच ग्रास आत्मा रूपी ब्रह्म के लिए पंच आहुति रूप में लेना चाहिये। अन्यथा जो भी सामने थाली मे है उसी से पंच आहुति की क्रिया पूरी कर लें। इसके पश्चात् बोलें—*अमृतो पस्तरणमा ।*

इस मंत्र द्वारा शुद्ध जल पात्र से जल लेकर आचमन करें। 'अमृतमय अन्न देवो को आसन प्रदान करता हूँ।' इसके पश्चात् अच्छी तरह आसन पर बैठकर मौन होकर भोजन करना चाहिए। जब थोड़ी भूख रह जाय तभी भोजन करना समाप्त करके 'अमृत पिधानमसि' इस मंत्र से फिर आचमन कर लेना चाहिये।

भोजन करते वक्त जहाँ तक सम्भव हो खूब चबा-चबा कर ही खाना चाहिए। मुँह में खाद्य पदार्थ जितना अधिक चबाया जाएगा पेट की आंतों को उतना ही आराम मिलेगा। मुँह की लार अन्न के साथ जितनी अच्छी तरह मिलेगी उतना ही आहार आसानी से पचेगा। पानी भी भोजन करने से आध घण्टे पहले पर्याप्त मात्रा में पी लेना चाहिए, ताकि भोजन के वक्त ज्यादा पानी नही पीना पड़े। पानी की प्यास लगे तो घूंट-घूंट थोड़ा बहुत पी लिया करें। अन्त मे हाथ धोकर कुल्ला करे। ध्यान रहे, खाद्य सामग्री का अंश मुँह मे जरा भी नहीं रहना चाहिये। दांत रोग का कारण अक्सर अन्न का दांतो में रहना ही है।

क्या खाना है, कौन सी सामग्री पहले ली जाय, इसका निर्णय विवेक से करें। प्रसन्न मन से भोजन करेंगे तो रूखा-सूखा जैसा भी उपलब्ध है वह सुस्वादु भोजन का पूरक होगा। भोजन को इस तरह ब्रह्म प्रसाद मानकर आप अन्न ब्रह्म का महत्त्व बनाए रहेंगे।

प्रसन्न मन से जो भी थाली मे परोसा है उसे ग्रहण करें। नाक-भौह सिकोड़ कर खाएंगे तो जो उस आहार से शरीर को मिल सकता है वह नहीं मिलेगा। जूठन नही छोड़े, छोड़ना भी हो तो वह किसी पशु-पक्षी के काम आ सके ऐसी स्थिति में निकाल ले।

अन्न देव का अपमान शरीर को रुग्ण एवं मानसिक रोगी बनाता है।

आहार का जीवन में आध्यात्मिक महत्व :–

अन्नाहार का हमारे जीवन मे अत्यधिक महत्व है। पाश्चात्य विद्वान हावेर्ड विलियम्स ने 'आहारनीति' नामक पुस्तक में विभिन्न युगो के ज्ञानियो, अवतारो और पैगम्बरों के सात्विक आहार पर प्रकाश डाला है। पाइथोगोरस एवं प्रभु ईसा भी अन्नाहारी थे। मनस्य दवा के बजाय केवल भोजन के फेर-फार पर जोर दे तो स्वस्थ

रह सकता है एवं रोगी भी चगा हो सकता है। भारतीय संस्कृति मे सनातन धर्म मे अमावस्या, पूर्णिमा एवं अन्य तिथियो पर फलाहार एवं सन्तुलित आहार पर धार्मिक दृष्टि से महत्त्व दिया गया है। आहार केवल भोजन मात्र ही नही, यह तो जीवन सत्त्व है, वह ब्रह्म है। भारतीय प्राचीन ग्रन्थ उपनिषदो मे इस पर व्यापक विवेचन है।

परमात्मा द्वारा रचित इन्द्रियों के अधिष्ठाता अग्नि आदि सब देवता संसार रूपी महासमुद्र में आ पड़े अर्थात् हिरण्यगर्भ पुरुष के शरीर से उत्पन्न होने के बाद उनको कही निर्दिष्ट स्थान नही मिला जिससे वे उस समष्टि शरीर मे ही रहे। तब परमात्मा ने उस देवताओ के समुदाय को भूख और प्यास से संयुक्त कर दिया, अतः भूख और प्यास से पीड़ित होकर वे अग्नि आदि सब देवता अपनी सृष्टि करने वाले परमात्मा से बोले—भगवन्! हमारे लिए एक ऐसे स्थान की व्यवस्था कीजिए जिसमे रहकर हम लोग अन्न भक्षण कर सके। अपना-अपना आहार ग्रहण कर सके।

इस प्रकार उसके प्रार्थना करने पर सृष्टिकर्ता परमेश्वर ने उन सबके रहने के लिए एक गौ का शरीर बनाकर उन्हे दिखाया। उसे देखकर समस्त देवताओं ने कहा—'भगवन् वह शरीर हमारे लिए उपयुक्त और पर्याप्त नही है अर्थात् इस शरीर से हमारा कार्य भली प्रकार नही होगा। इससे श्रेष्ठ किसी अन्य शरीर की रचना कीजिये।' तब परमात्मा ने उनके लिए घोड़े का शरीर रचकर दिखाया। उसे देखकर फिर बोले—'भगवन् यह शरीर भी हमारे लिए यथेष्ठ नहीं है। इससे भी हमारा कार्य नही चल सकता। आप कोई तीसरा अन्य शरीर का निर्माण कर हमें दीजिये।' तब परमात्मा ने उनके लिए पुरुष शरीर की रचना की।

उसे देखते ही सब देवता बड़े प्रसन्न हुए और गद्गद् होकर बोले—हे भगवान्! आपने कृपा कर हमारे लिए बहुत सुन्दर निवास स्थान बना दिया है। वस्तुतः मनुष्य शरीर सृष्टि की सर्वश्रेष्ठ कृति है, उसकी महिमा का हमारे धर्मग्रन्थो मे विशेष वर्णन किया गया है।

शरीर की रचना करने के पश्चात् परमात्मा ने देवताओ से कहा, आप लोग अपना-अपना योग्य स्थान देखकर इस शरीर मे प्रवेश पा ले। तब सृष्टिकर्ता की आज्ञा पाकर अग्नि देवता का रूप धारण किया और मनुष्य शरीर के मुख मे प्रविष्ट होकर जिह्वा को अपना आश्रय बनाया। वरुण देवता रसना इन्द्रिय बनकर मुख मे प्रविष्ट हो गये। वायु देवता बनकर आँखो मे प्रविष्ट कर गए। दिशाभिमानी देवता श्रोनेन्द्रिय बनकर दोनो कानो मे प्रविष्ट हो गये। औषधि और बनस्पतियो के अभिमानी देवता रोम बनकर त्वचा मे समा गए चन्द्रमा मन का रूप धारण कर हृदय मे प्रवेश कर

गए। मृत्यु देवता अपना वायु का रूप धारण कर नाभि मे प्रविष्ट हो गए। इस प्रकार समस्त देवता इंद्रियों के रूप में अपने-अपने उपयुक्त स्थानों में प्रविष्ट हो गए। यह स्थिति देखकर भूख और प्यास ने परमेश्वर से प्रार्थना की—भगवान आपने सभी देवताओं को रहने के स्थान निर्धारित कर दिये हैं, पर हमारे लिए आपने कोई उपयुक्त स्थान निर्धारित नही किया है। हमारे प्रति भी न्याय कीजिये। उनकी प्रार्थना सुनकर भगवान ने कहा—तुम दोनो के लिए पृथक् स्थान की कोई आवश्यकता नही है। प्रत्येक देवता के आहार में सदा तुम्हारा वास रहेगा, तुम दोनों प्रत्येक इन्द्रिय के साथ संयुक्त रहोगे। आज हम यही देख रहे हैं। इन्द्रियों द्वारा जो विषय भोग ग्रहण किये जाते है उसमे क्षुधा और पिपासा सन्निहित रहती है। इस क्षुधा और पिपासा की तृप्ति के लिए ही सृष्टिकर्ता ने अन्न और जल का संयोजन किया है।

तब अन्न भक्षण किये जाने के डर से मनुष्य से दूर भागने लगा तो जीवात्मा ने वाणी, प्राण, चक्षु, श्रोत्रेण, त्वचा, मन. लिंग द्वारा पकड़ना चाहा पर वह वशीभूत नही हुआ।

अन्त मे उस पुरुष ने अन्न को मुख के द्वार से अपान वायु द्वारा ग्रहण करने की चेष्टा की तब वह सफल रहा और मुख से सारे शरीर में उसे ग्रहण करने का सकल्प पूरा कर लिया। इसी कारण प्राण वायु के सम्बन्ध में कहा जाता है कि यही अन्न के द्वारा मनुष्य के जीवन की रक्षा करने वाला होने से साक्षात् आयु है।

अन्न की महिमा :—

इस पृथ्वी लोक में निवास करने वाले जितने भी प्राणी हैं, वे सब अन्न से ही उत्पन्न हुए हैं। अन्न के परिणामस्वरूप रज और वीर्य से ही उनके शरीर बने हैं, उत्पन्न होने के बाद अन्न से ही उनका पालन-पोषण हुआ है। अतः अन्न ही जीवन है। फिर अन्त मे इस अन्न मे ही मल उत्पन्न करने वाली पृथ्वी मे ही विलीन हो जाते हैं। शरीरस्थ जीवात्मा अन्न मे विलीन नहीं होते वे प्राणी के साथ इस शरीर से निकल कर अन्य शरीरो मे प्रवेश कर लेते है और ये जन्म-मरण का चक्र कर्मो के अनुसार चलता ही रहता है।

अतः स्पष्ट है कि अन्न ही समस्त प्राणियो की उत्पत्ति आदि का कारण है। इसी कारण अन्न को सर्वोषधि रूप कहा जाता है क्योंकि उसी से प्राणियो का क्षुधाजन्य सताप मिटता है। सारे संतापों का मूल क्षुधा है, अत· उसके शात होने पर सारे संताप मिट जाते हैं।

गीता में कहा है—

युक्ताहार विहारस्य
युक्त चेष्टस्य कर्मसु
युक्त स्वप्नाव बोधस्य
योगो भवति दुःखहर।

आहार-विहार, खान-पान, सोना-जागना आदि युक्त उचित, मर्यादापूर्ण रखा जाय और समस्त कार्य मुक्त रूप से संतुलित रूप से निष्पादित किये जाएँ तो योग दुःखनाशक होता है।

मनुष्यों को चाहिये कि वे उचित पथ्य आहार और नियमों का विधिवत् पालन कर शरीर को आरोग्य रखें क्योंकि उसके बिना धर्म, अर्थ, काम और मोक्ष इन चतुर्थ पुरुषार्थों को प्राप्त नहीं किया जा सकता।

अतः स्पष्ट है कि हजारों वर्ष पूर्व भी आहार-विहार उचित युक्त रखने की अनिवार्यता को महत्व दिया गया। उसकी उपयोगिता केवल आध्यात्मिक बोध, धर्म चिंतन आदि के लिए ही नही, बल्कि दीर्घायु के लिए स्वीकार की गयी और उस स्थिति में आहार-विहार और अन्न ग्रहण ज्ञान का सम्बन्ध आयुर्वेद से संयुक्त हुआ।

आयुर्वेद और आहार संस्कार में पाश्चात्य मिश्रण :—

आयुर्वेदिक ग्रन्थों में शरीर रचना और उसके विकास के सम्बन्ध में बताया गया है कि मनुष्य जो खाता-पीता है वह उसके पेट में और वहाँ से आंतों में जाकर पचता है, उसका रस बनता है। रस से रक्त एवं रक्त से मांस, मांस से मेद, मेद से अस्थि और मज्जा और मज्जा से वीर्य बनता है। इस प्रकार भोजन और आहार से ही शरीर के अंग-प्रत्यंग बनते हैं।

परन्तु आहार गलत होने पर उसका रस अच्छा नही बनता। रस अच्छा नही बनने से रक्त खराब हो जाता है जिससे शरीरस्थ अन्य धातु भी ठीक से नहीं बन पाते। उससे शरीर में शिथिलता आ जाती है और शारीरिक क्रियाओं की यंत्र व्यवस्था बिगड़ जाती है, उसी से रोग उत्पन्न होते हैं।

आयुर्वेद के महान मर्मज्ञ चरक ने भी स्पष्ट किया है कि समस्त रोग मल दोष के कुपित होने से होते हैं। जिसका मुख्य कारण है अहित और दोषयुक्त आहार-विहार। आहार-विहार जब मर्यादा की सीमा उल्लंघन कर देता है तब दोष धातु और मल की

वृद्धि करते है। कुपित हुए दोष रक्त के माध्यम से जब रसवहा और रक्तवहा नाड़ियो मे रुकावट आ जाती है, वही व्याधि उत्पन्न हो जाती है।

आहार संस्कार की मर्यादा :—

आयुर्वेद मनीषियो ने रोगो के तीन कारण बताये है—विषयों का अतियोग, अयोग और मिथ्यायोग। मर्यादा का अति सेवन अतियोग है, बिल्कुल न सेवन अयोग है और गलत रूप से सेवन करना मिथ्यायोग है। आहार संस्कारो के लिए भी यह नियम लागू होता है।

आहार के अतियोग, अयोग और मिथ्यायोग :—

प्रायः सभी आयुर्वेद ग्रन्थों मे इस बात का उल्लेख है कि आहार की मात्रा न तो अधिक और न ही अत्यन्त अल्प होनी चाहिये। इस विषय में महर्षि चरक ने स्पष्ट लिखा है कि उतनी ही मात्रा में आहार करना चाहिये जो वात, पित्त और कफ प्रकृति को कुपित न करे तथा जो शीघ्र ही सुपाच्य हो जाय। इस तरह मर्यादित मात्रा मे भोजन करने से ही मानव दीर्घायु होता है, निरोग रहता है और उसके शरीर में बिजली की स्फूर्ति रहती है। वास्तव में उचित मात्रा मे लिया गया आहार व्यक्ति की प्रकृति मे बाधा नहीं पहुँचाते हुए उसे निश्चय ही बल, वर्ण, सुख और पूर्ण आयु से युक्त करता है। अर्थात् ऐसा प्राणी स्वस्थ, सुखी और दीर्घ आयु वाला होता है।

अष्टांग हृदय मे भी इस सन्दर्भ में उल्लेख है कि 'मात्रांश स्यात भावार्थ' मात्रा के अनुसार ही भोजन करना स्वास्थ्य के लिए श्रेयस्कर है।

कुछ लोगो की धारणा है कि अधिक से अधिक और स्वादिष्ट से स्वादिष्ट भोजन करने से शरीर हृष्ट-पुष्ट होता है। इस भ्रम मे अनेक व्यक्ति अपनी जठराग्नि पर अधिक दबाव डालकर उसे क्षीणकाय और निर्बल बना देते हैं। उस स्थिति मे पाचन शक्ति बिगड़ जाती है जिससे रोगोत्पत्ति के मार्ग खुल जाते है।

अति भोजन आरोग्य-नाशक, आयु को कम करने वाला, स्वर्गीय सुखो का प्रतिबंधक, पुण्य का नाश करने वाला और लोकनिंदक है, उसका परित्याग करना ही श्रेयस्कर है।

हमारे नीति शास्त्रों में लिखा है—'अधिक मात्रा में भोजन करना और बिना बात के ही अधिक बोलना, किसी भी व्यक्ति के लिए घातक हो सकते हैं।' हम भोजन के लिए जीते है, इस भ्रामक धारणा के कारण ही आज सारे संसार में तरह

तरह के रोगो का जाल फैलता जा रहा है। स्पष्ट है कि आवश्यकता से अधिक ग्रहण किया हुआ आहार समस्त दोषों को प्रकुपित करके तरह-तरह की व्याधियो को जन्म देकर हमारे भावी जीवन को भी दूषित कर देता है।

इस सन्दर्भ मे 'अष्टांग हृदय' मे कहा गया है—मानव शरीर को आवश्यकता से कम मात्रा में आहार करने से न तो शरीर को बल मिलता है और न ही उसकी मांसपेशियो की उचित सवृद्धि होती है। अल्पाहार से शरीर कांतिहीन हो जाता है और इससे बात सम्बन्धी व्याधियां बढ़ने लगती हैं। उससे कुपोषण का भी खतरा बना रहता है। इसलिए आहार की मात्रा उतनी अवश्य लेनी चाहिये जिससे संतुलित आहार की भी आवश्यकता पूरी हो जाती हो।

गलत रूप से आहार का सेवन करना मिथ्यायोग है। इस विषय मे हमारे आयुर्वेदाचार्यो ने निर्देश दिये हैं कि जितनी क्षुधा हो, उससे कुछ कम आहार लेना ही श्रेयस्कर है ताकि पाचन शक्ति की क्रिया पर अधिक बोझ न पड़े। अति आहार, आरोग्य नाशक, दूषित भोजन, आयु को घटाने वाला भोजन त्याज्य है। समय, देशकाल और ऋतु की प्रकृति के प्रतिकूल आहार का सेवन करना मिथ्यायोग है। प्रातः और सांझ को संध्याकाल मे भोजन करना समीचीन नही है। सूर्यास्त के पहले भोजन करने का निर्देश हमारे शास्त्रों ने दिया है। अधिक देर रात को लिया गया आहार सुपाच्य नही होता। इसी प्रकार सात्विक पुरुष को रसयुक्त, चिकने और स्थिर रहने वाला आहार ग्रहण करना चाहिये। रजस पुरुष को लवण मुक्त, कड़वे, खट्टे, तीक्ष्ण, रूखे आहार लाभप्रद हैं। इसी तरह तामस प्रकृति के पुरुष को अधपका, बासी भोजन अच्छा लगता है। यदि ये तीनो व्यक्ति सात्विक सत्व वाला आहार लेने लगें तो पूरा समाज स्वस्थ व निरोग रह सकता है।

आहार की कुछ सावधानियाँ :—

हम सभी स्वस्थ और दीर्घ जीवन की इच्छा रखते हैं। यदि व्यक्ति दृढ़ निश्चयी है तो लक्ष्य को प्राप्त करना आसान है। जितना सम्भव हो प्रकृति के साथ रहना और उसका अनुकूल व्यवहार करना। इसका प्रतिकूल प्रभाव जीवन पर पड़ता है। अपने पर्यावरण और उसके इर्द-गिर्द से उन चीजों को निकाल दीजिये, जो अप्राकृतिक और हानिकारक हो। आहार में उन वस्तुओं को सम्मिलित करें जिसमे पोषण की क्षमता हो। आज आधुनिकता के चक्कर मे हम रंग-बिरंगी व ऐसी वस्तुएँ खाते हैं जिसमें रासायनिक पदार्थों का मिश्रण है। ऐसे खाद्य पदार्थ मानव शरीर के लिए हानिकारक

है, उनसे लड़ने की क्षमता प्राप्त करने मे शरीर की स्वाभाविक जीवन-शक्ति कुंठित हो जाती है। यद्यपि यह स्वाभाविक बात है कि हम वर्षों से पड़ी आदत शीघ्र नही छोड़ सकते फिर भी प्रकृति के साथ ताल-मेल बैठाकर प्राकृतिक जीवन जीना भी एक क्रम है। यह तो जीवन भर का संतुलित क्रम है।

एस्प्रीन और दर्द कम करने के नाम पर दी जाने वाली दवाएँ, पाचक अथवा रेचक दवाएँ, ट्रेंक्विलाइजर आदि जितना इलाज नहीं करती, प्रतिक्रिया सूचक होने के कारण उससे अधिक कष्ट पैदा करती हैं। यदि आप सही आहार लेते है, तब आपके शरीर की प्रकृति शरीर मे उत्पन्न कचरे को निकाल फेकने मे स्वत: सक्षम है। यदि आपको खुलकर शौच न हो तो इसमे खतरे की कोई बात नहीं है। घबराकर पाचक दवाएं न लेने लगें क्योंकि रेचक दवाइयाँ खतरा उत्पन्न करने मे सक्षम है। इसी तरह सिर दर्द का इलाज एस्प्रीन नहीं अपितु उन कारणो को दूर कीजिए, जिससे सिर दर्द पैदा होता है। अतः स्वस्थ रहने का पहला आवश्यक कार्य यह है कि आप अपने आप डाक्टर बनकर निरर्थक दवाओ को लेते रहने की आदत बद कर दीजिए। देखिएगा कि आपकी स्थिति में सुधार आ जाएगा।

आजकल डब्बा बन्द आहार का प्रचलन आधुनिकता के नाम पर बढ़ रहा है। डब्बा बन्द आहार बीमारियो को आमंत्रण देता है। बाजार में ताजा फल व तरकारियाँ खूब आती हैं। उनकी ओर नजर दौड़ाकर उनसे पूरा लाभ उठा सकते हैं। जो स्वाद व गंध उनसे प्राप्त होती है वह डिब्बे वाली से नही। डिब्बे बन्द फल व सब्जियाँ विटामिन तैयार करने की प्रक्रिया मे प्रायः नष्ट हो जाते हैं। उनके डिब्बे मे बन्द करने की प्रक्रिया से उनके एन्जाइम को क्षति पहुंचती है। विटामिन और खनिज लवणो से भरपूर होने के विज्ञापनो को पढ़कर बन्द आहार स्वास्थ के लिए हानिकारक हैं।

आहरीय पदार्थो को डब्बे मे बन्द करने वाली कम्पनियाँ भी इस बात से अवगत [illegible] हैं कि उनका प्रदत्त आहार में ओछा है। इसे छिपाने के लिए उसे रंगते हैं। [illegible] कऊपन लाने वाले पदार्थ मिलाते हैं, कीटनाशी दवाइयां डालते हैं। ऐसे डिब्बे बन्द आहार खाने पर शरीर पर अनेक अप्राकृतिक तत्व विषाक्त भी होते हैं। जो व्यक्ति ऐसे पदार्थों का निरन्तर सेवन करता है, वह अपने शरीर शोधक अंगों पर अतिरिक्त कार्यभार डालता है और उच्च रक्त-चाप, यकृत कष्ट अथवा कैंसर जैसे असाध्य रोगों के जाल में फस जाता है।

अनेक ऐसी ताजी सब्जियाँ हैं, जिनके लिए पकाने की कोई अपेक्षा ही नही रहता सलाद स्वयं अपनी ओर आकृष्ट करने वाला है पालक पत्तागोभी हरी मटर

गाजर, चुकन्दर, टमाटर आदि कुछ भी लें और उनका सलाद बना दें। सलाद की पत्तियाँ और टमाटर के नियमित सलाद से आप नित्य नए स्वाद का आनन्द ले सकते हैं। हरी मटर और चुकन्दर की मिठास का आनन्द अलग है।

मैदे की बनी पाव रोटियाँ कतई न खाएं। मैदे की पाव रोटी अनेक विकार पैदा करती है। कब्ज उनमें प्रमुख है। उनसे एलर्जी की आशंका रहती है और कोशिकाएँ विकार युक्त हो जाती हैं। चोकरदार रोटी बहुत ही लाभदायक होती है। चोकरदार आटे की रोटी के सेवन और हरी साग-सब्जियों के व्यवहार से कब्ज की शिकायत हो ही नही सकती। अतएव अपने जीवन और आहार को जहाँ तक संभव हो, प्रकृति से तालमेल बैठाकर चलें।

भोजन का तौर-तरीका :—

प्राकृतिक रूप से हर प्राणी और मानव के शरीर की रचना इस तरह से की है कि वह सदा स्वस्थ और सुखी रह सके लेकिन आज की व्यस्त जिन्दगी में सभ्य मानव स्वाभाविक आहार और प्रकृति के जीवन स्रोतों से दूर हो रहा है। शरीर स्वतः अपने को स्वस्थ रखने में क्रियाशील रहता है पर हम जाने अनजाने स्वयं ही प्रकृति के विरुद्ध चले जाते हैं। प्राकृतिक आहार से विमुख, जीवन स्रोतो से वंचित, स्वाभाविक शुभ संस्कारों से वंचित और व्यायाम से दूर भागने वाला सभ्य मानव अदृश्य रोगों, अपच व कब्ज, का प्रायः शिकार रहता है। कब्ज ही सारे रोगो की जननी है।

हम इस व्यस्त जीवन मे पांच मिनट शांति से बैठकर भोजन तक भी नहीं कर सकते और फिर उम्मीद करते हैं कि जो कुछ खाया है, आसानी से पच जाए और गैस भी नही बने। आज हम 'बफर सिस्टम' को प्रोत्साहन देते हैं किन्तु भोजन बैठकर ही करना उचित है। पेट की व्याधि का मुख्य कारण खड़े खड़े भोजन करना है।

आहार हमारा तभी पचता है जब शरीर के अन्दर से पाचक रस स्रवित होते हैं और उन्हें स्रवित करने का सहज तरीका है सुखासन में बैठकर खाना। बच्चे में यह संस्कार प्रारम्भ से ही डालना हमारा नैतिक कर्तव्य है। भोजन खूब चबाकर खायें। भोजन के बाद खाद्य सामग्री का अंश मुंह मे जरा भी नहीं रहे। दन्त रोग का मुख्य कारण भोजन का दांतों में सड़ना ही है।

आज हम पाखाना जाने के लिए भी पाश्चात्य तरीका अपनाते हैं, जबकि देशी तरीका इतना सहज है कि उसमें बैठने के बाद कब्ज रहने की गुंजाइश ही नहीं रह

है जिससे आंतों मे एक लहरदार क्रिया होती है और मल विसर्जन मे पर्याप्त मदद मिलती है। हमारे पूर्वज लघुशंका भी बैठकर करने की हिदायत देते थे। इससे मूत्राशय पर अनुकूल असर पड़ता है। लेकिन आज हम सभ्यता की दौड़ मे अपने संस्कार ही भूलते जा रहे हैं।

वज्रासन मुद्रा में बैठने पर भोजन पचता है एवं पाचक रस स्रवित होता है।

आहारों से ठूँसा आमाशय भोजन को मथने का कार्य ठीक उसी प्रकार से नही कर सकता, जैसे पानी से भरा मुंह कुल्ला नहीं कर सकता। कायदे से हमे इतना ही आहार करना चाहिए कि आमाशय आधा ही भर पाए। आमाशय का एक चौथाई भाग पानी के लिए खाली रखा जाना चाहिये।

आप आधुनिक युग की सुविधाओं और वैभव का भले ही लाभ उठाएँ, लेकिन शरीर के स्वभाव को, प्रकृति के स्वभाव को और आहार-विहार को आधुनिकता से अछूता रखिए, यही अच्छे स्वास्थ्य और आत्मशांति का मार्ग है।

उत्तम स्वास्थ्य : एक संदेश :—

प्रकृति के प्रदत्त उपहारों में षड्ऋतुओं में शरद ऋतु को प्रकृति की नववधु माना गया है। वर्षा के पश्चात् शरद ऋतु का आगमन होता है। मेघाच्छन्न आकाश स्वच्छ हो जाता है, सरिताएँ स्वच्छ हो जाती हैं। चांदनी की आलौकिक छटा सबको मनमोहित करती है। भले ही संस्कृत साहित्य में कवियों ने आकाशकुसुमों के वसन धारण किए मदनरूपी सुन्दर मुखवाली, उन्मत्त हंसों के कलरव के रूप में अपने पायलों की मधुर ध्वनि उपजाती समन्ततः अपनी मनोहारिणी देह धारण किए रूपगर्विता नववधु की भांति शरद ऋतु का स्वागत किया है।

और इसी शरद ऋतु का सर्वोत्तम पर्व स्नेहसिक्त दीपावली अपनी ज्योत्सना लिए आ पहुंचता है ताकि अन्तस की कालिमा व अन्धकार नष्ट हो जाए।

इसी मध्य धनतेरस को प्रारम्भ होने वाले इस दीपावली के पुनीत पर्व पर भगवान धन्वन्तरि का भी अवतरण हुआ था। आयुर्वेद का प्रारम्भ यद्यपि सृष्टि के प्रारम्भ से ही ब्रह्माजी के समय से है परन्तु उद्धारक के रूप में तो भगवान धनवन्तरि ही आयुर्वेद के जन्मदाता माने जाते थे। आयुर्वेद से प्राणीमात्र के दुःख कष्टों को दूर करने का भगवान धन्वन्तरि का संदेश था।

हम विचार करें कि शरीर में किस ऋतु में कौन से दोष संचित होते हैं, कौन से प्रकुपित और कौन से क्षीण, इस पर विचार करें वर्षा में पित्त संचित वायु प्रकुपित

और कफ क्षीण होता है, वहीं शरद ऋतु में पित्त प्रकुपित होता है कफ क्षीण हो जाता है। शरद ऋतु के खानपान मे इस तरह की आहार विधि दर्शाई है जिनसे स्वास्थ्य सन्तुलित रहे।

हमारी दिनचर्या का भी स्वास्थ्य से बहुत गहरा सम्बन्ध है। वायु के प्रकोप से जहां चिन्ता उत्पन्न होती है जो हाईब्लडप्रेशर को जन्म देती है पित्त की प्रधानता क्रोध उत्पन्न करती है, एलर्जी, अनिद्रा, रक्त विकृतियां सब पित्तजन्य प्रकोप ही हैं। कफ की अधिकता से निद्रा उत्पन्न होती है। भोजन के समय जहां कफ की उत्पत्ति होती है परिपाक अवस्था में पित्त दोष उत्पन्न होते हैं, परिपाक हो जाने पर वायु दोषहीन योग, मिथ्यायोग, अतियोग ही दोषोत्पत्ति मे कारण बनते हैं। आगन्तुक कारण भी बनते हैं।

विचारणीय यह है कि वर्षा और ग्रीष्म मे जो भी स्वास्थ्य रक्षण से सम्बन्ध में लापरवाही बरती है, शरद ऋतु में शरीर के शोधक के पश्चात् हम सजग होकर शीत ऋतु के स्वास्थ्य संरक्षण के लिए उद्यत हो जावें।

आयुर्वेद चिकित्सा विज्ञान ने आहार-विहार ऋतुचर्या को स्वास्थ्य संवर्धन के लिए बहुत आवश्यक माना है। आहार शास्त्र की उपयोगिता को देखते हुए विश्व स्वास्थ्य संगठन जैसी संस्थाएं आज तो बड़ी बड़ी कांफ्रेस आयोजित करती हैं।

परन्तु रसों का शरीर पर क्या प्रभाव पड़ता है, उनकी उत्पत्ति में संयोग क्या है, इनमें परिवर्तन क्यों व कैसे होते हैं, यह समझना आवश्यक है। जब तक इस परिकल्पना को हम नहीं समझेंगे तब तक वैज्ञानिक दृष्टि से आयुर्वेद का दृष्टिकोण समझ ही नहीं पाएंगे। प्राच्य भारतीय शास्त्रविदों के मतानुसार शरीर पंच महाभूतों (पृथ्वी, आकाश, वायु, जल और अग्नि) से निर्मित है। साथ ही संसार के अन्य समस्त पदार्थ भी इन्हीं पंच महाभूतों के संयोग से निर्मित हैं। परन्तु समस्त पदार्थों मे महाभूतों या परिमाण समान नहीं होता। किसी पदार्थ में किन्हीं महाभूतों का आधिक्य होता है और किसी में अन्य किन्हीं का। जैसे यदि एक पदार्थ में जल का आधिक्य है तो दूसरे में अग्नि का। इसी प्रकार संसार के समस्त पदार्थों में पंच महाभूतों की न्यूनाधिकता पायी जाती है।

महाभूतों की न्यूनाधिकता के कारण ही भिन्न भिन्न पदार्थों में स्वाद की विभिन्नता पायी जाती है। किसी पदार्थ का स्वाद मीठा होता है, किसी का खट्टा, किसी का चरपरा।

आयुर्वेद मे ये षट्रस के नाम से विख्यात है—

मधुर-मीठा-संयोग —पृथ्वी जल
अम्ल-खट्टा-संयोग —अग्नि
लवण-नमकीन-संयोग—जल व अग्नि
तिक्त-कड़वा-संयोग —वायु और प्रकाश
कटु-चरपरा-संयोग —वायु और अग्नि
कषाय-कषैला-संयोग —वायु और पृथ्वी का आधिक्य

शारीरिक पंचभूतो की स्थिति ठीक रखने के लिए षड़रसयुक्त पदार्थ सेवन करते रहने की आवश्यकता है। यदि इनमे से किन्ही एक ही या दो तीन रसों का सेवन किया जाय तो शरीर मे उन महाभूतो का—जो उस या उन रसो में अधिकता से रहते हैं—आधिक्य होकर अन्य की न्यूनता हो जायेगी। ऐसी दशा में स्वास्थ्य पर प्रतिकूल प्रभाव पड़ेगा।

पञ्चमहाभूतों का परिमाण समान नही होने से मनुष्यो की प्रकृति भिन्न-भिन्न स्वभाव की होती है। अतः भोजन में भी प्रकृति का विचार कर लेना चाहिए। वात, पित्त, कफ प्रकृति का विचार कर लेना चाहिए। वात, पित्त, कफ प्रकृति के अनुकूल ही रसों का सेवन करें। मधुर रस—सभी प्रकार की प्रकृति वालों के लिए लाभप्रद है, परन्तु पित्त प्रधान प्रकृति वालो के लिए विशेष हितकर है। सभी रसो की अपेक्षा मधुर रस का सेवन इसलिए लाभप्रद है कि कार्यकारिणी शक्ति मधुर रस के सेवन से उत्पन्न होती है।

- **मधुर रस :** सदैव हितकर, बलवर्धक और जख्म तथा क्षीण पुरुषों के लिए जीवनशक्ति-दायक है। केशवृद्धि समस्त इन्द्रियों की पुष्टि धृति, मेधा, ओज, बल की वृद्धि के लिए इसका सेवन किया जाय। यह स्तन्यजनक है अस्थि-संधानक (जोड़ने वाला) कण्ठ को मधुर करता है। इसके अति सेवन से डायबीटीज होती है।
- **अम्ल :** पाचक, अग्निवर्धक, रुचिकारक, उष्णकफनाशक और मृदु एवं शीघ्र पाचक है। इसके अतिसेवन से दन्त रोग, नेत्र रोग, कंठ रोग, छाती में जलन, रक्त पित्त तथा शरीर में शिथिलता उत्पन्न होती है आग्नेय गुण की अधिकता से यह वीर्य को पतला करता है। नेत्र ज्योति का नाश करता है।
- **लवण :** यह पाचक, मलशोधक और उष्ण है अस्थिपोषक रक्त नलिकाओं

के खिंचाव, तनाव तथा स्रोतों के अवरोध (बन्ध) को दूर करता है तथा पसीना लाता है। अत्यधिक सेवन से खुजली, कोढ़, प्यास, दौर्बल्य, नेत्र ज्योति का ह्रास एवं सन्धियो में शिथिलता उत्पन्न करता है।

तिक्त : विष-कृमि पित्त, तृषा तथा मूर्छा, कुष्ठ, ज्वरमन (जी मचलाने की सी स्थिति), दाह एवं रक्त विकार का नाशक तथा मलमूत्र शोधक है। इसके अधिक सेवन से अनेक तरह के वात रोग, धातुक्षय, नसों में तनाव एवं अरुचि उत्पन्न होती है।

कटु रस : अग्नि दीपक, पाचन मल मूल शोधक, कफ नाशक तथा गरम व खुश्क है। इसके अधिक सेवन से शुक्रक्षरण, धातुक्षीणता, तृषावृद्धि और शिराओं में कृशता दाह कम्पन्न उत्पन्न होते हैं।

कषाय : कफ-पित्त नाशक, मलावरोधक क्लेशकारक तथा दसा नाशक है। इसके अति सेवन से स्थूल अंगो में तनाव, अफारा इत्यादि उत्पन्न होते हैं। महर्षि चरकाचार्य ने कहा है कि मनुष्य को मात्रानुसार ही भोजन हिताहित का विचार करके करना चाहिए। जितना आसानी से पचा सके वही आहार लेना चाहिए— मात्रानुसार।

पुनः गुरु लघु पदार्थों के सेवन से जठराग्नि के बल को युक्तिपूर्वक बनाए खना चाहिये। आमाशय के दो भाग को भोजन से, एक भाग जल से पूर्ण करना गहिये और चौथा वायु संचरण के लिए रिक्त रखना चाहिए।

दही, दुग्ध, घृत सभी के सेवन के नियम हैं। इनके विपरीत चलने पर ये बल ्रदान करने के बजाय हानिकारक बन जाते हैं। हानिकारक ही नहीं, विषतुल्य भी।

दही सेवन के नियम हैं जैसे—

न नक्तं दधि भुञ्जीत
न चाप्य घृत शर्करम्
नामुदग सूंप ना क्षोद्रं
नोष्णं नामल कै विना

रात्रि में दही का सेवन न करें। उसमें घृत या शर्करा मिलाकर ही लें। दही सेवन करते समय मूंग की दाल या थोड़ा सा शहद या आंवला अवश्य मिला लें। भूल कर भी दही को गमक करके न खाएं। दही अवजमा न हो और शरद ऋतु में त्याग देना चाहिए।

हमारा जीवन स्वभाव से हानिकारक सयोग विरुद्ध द्रव्यो के सेवन का अभ्यस्त हो चुका है। अमृत तुल्य पदार्थो मे भी जब विरोधाभास हो वह विष समान है। इसे ही आजकल फूड पाईजन कहते है।

प्रत्येक पदार्थ के मूल स्वरूप को विकृत किए बिना सेवन किया जाये तो वह स्वास्थ्यवर्धक होगा। सारे प्राकृतिक तत्व पदार्थो मे सुरक्षित है, सभी शाको मे प्राकृतिक लवण, अत्यधिक उबालने से नष्ट हो जाते हैं।

भोजन के समय की मानसिक स्थिति बहुत शान्त होनी चाहिये। ईर्ष्या, भय, क्रोध, लोभ, द्वेष के विचारों से भोजन का परिपाक ठीक से नही होता। इससे अजीर्ण उत्पन्न होता है, पाचक तत्त्व नष्ट होने लगते है।

भोजन पश्चात् त्याज्य कर्म जो है सोना, बैठना, पतले पदार्थ पीना, आग से तापना, सवारी पर चढना, व्यायाम एवं मैथुन, गायन और मद्य-पान निषिद्ध है।

सभी रोगो का मूल कारण अहित आहार-विहार ही है। इनकी समता बनाए रखने का प्रयत्न करते रहना चाहिए।

प्रकृति के सानिध्य में आरोग्य :—

सृष्टि की समस्त गतिविधियां प्रकृति के नियमानुसार चलती है। मनुष्य अगर सदैव स्वस्थ तथा प्रफुल्लित रहना चाहता है तो उसे प्रकृति के चक्र को समझना होगा। मनुष्य की प्राण शक्ति का अक्षय स्रोत्र है—सूर्यदेव। सूर्य की रश्मियों में सात रग है, मानव शरीर भी सात रंगों का पिण्ड है, सृष्टि की समस्त वसुन्धरा वृक्षों पर सात रंगों के फल आरोग्य के लिए प्रदान करती है। अगर मनुष्य इन तीनो का तालमेल रुग्णावस्था में आरोग्य के लिए करें तो दुनिया की कोई ऐसी बीमारी नही जो ठीक नही हो सकती। तभी तो भारतीय संस्कृति मे सूर्योपासना का 'विशेष महत्व प्रदान करते हुए पीपल, तुलसी व सूर्यदेव को अर्घ्य देने का विधान बनाया गया है। सूर्य देवता के लाल वर्ण से रक्ताणुओ का गहरा सम्बन्ध है। सूर्योपासना से जहाँ एक ओर शरीर मे दिव्य शक्ति का संचालन होता है, वहीं दूसरी ओर शरीर में रोगाणुओ से लड़ने की प्रतिरोधात्मक शक्ति भी प्रज्वलित होती है। जिससे मनुष्य सदा निरोगी बना रहता है।

—भगवान धनवन्तरी

छात्रों में पोषक तत्त्व एवं उनके प्रभाव—

	स्रोत	कमी के लक्षण
उनके प्रभाव		
I शरीर की ईंधन (कैलोरी) पूर्ति करते हैं	चावल, गेहूं, अन्य अनाज, आलू, चीनी, गुड़	वजन में कमी, कमजोरी, मूर्च्छा
ऊतकों का निर्माण व मरम्मत करते हैं।	दालें, काष्ठफल, दूध, अंडे।	विलंबित विकास, न्यूनभार, वजन घटना, अस्वस्थता
गाढ़ी कैलोरियां देते हैं और विटामिनों (ए, डी, ई) से युक्त होते हैं	सब्जियां पकाने के तेल, वनस्पति, घी, मूंगफली, तिलहन	न्यूनभार, शुष्क त्वचा
र्ण पोषक तत्व		
आवश्यकता के कारण		
विकास, दृष्टि, स्वस्थ त्वचा, उत्तम दांत और हड्डियां, संक्रमक रोगों से बचाव	हरी पत्तेदार सब्जियां, 'पीले' फल (पपीता, आम), गाजर	खुरदरी, शुष्क त्वचा, तीव्र प्रकाश में कम दिखाई देना, असह्य तेज प्रकाश, अंधता तक हो जाना
संक्रमक रोगों के अवरोध की क्षमता, दांतों और मसूढ़ों की रक्षा, शरीर की कणिकाओं का निर्माण व मरम्मत	आंवला, नींबू, चूना, संतरा, टमाटर, सैंजने की पत्तियां, बंदगोभी, अंकुरित दालें व चने	शीघ्र खून आ जाना, देर से जख्म भरना, ढीले दांत, मसूढ़ों में छिद्र हो जाना
लोहिताणुओं का निर्माण		औरतों में अनीमिया (खून की कमी)
लोहिताणुओं का निर्माण	दालें, बीन, चने, हरी पत्तेदार सब्जियां	गर्भवती महिलाओं तथा बच्चों में अनीमिया (रक्तक्षीणता)
कार्बोहाइड्रेट का शरीर में सही उपयोग	अनपिसे गेहूं और चावल, काष्ठफल, दालें	भूख कम लगना, कब्जी, आलस्य
कणिकाओं द्वारा सुचारु कार्य तथा विकास	दालें, दूध, घी, पत्तेदार सब्जियां	रूक्ष आंखें, मुंह का अटपटा स्वाद, मुंह के किनारों का कटना, शुष्क त्वचा

नियासिन	कार्बोहाइड्रेट का सही उपयोग, कणिकाओं का सही कार्य और विकास	मूंगफली, दालें, गेहूं, अनपिसे चावल	सुर्ख़ी, खुजलीदार त्वचा, भूख न लगना और दस्त की बीमारी
खनिज पदार्थ			
कैल्शियम	दांत व हड्डियां मजबूत बनाना, खून के थक्के बनाना	दूध, मलाई उतारा हुआ दूध, दालें, धनिये के बीज, तिलहन	विलंबित विकास, खराब दांत और हड्डियां (रिकेट)
लोहा	लोहिताणुओं का निर्माण	हरी पत्तेदार सब्ज़ियां, रागी, बाजरा, मेथी, जिगर, अंडे	अनीमिया (रक्तक्षीणता)

रुग्णावस्था में प्रकट होने वाले लक्षण—

पहचान	वातजन्य रोग	पित्त-जन्य रोग	कफ़-जन्य रोग
जीभ का स्वाद	अस्वाद	कड़वा	फीका
जीभ का रंग	मैला	लाल	सफेद
पिशाब का रंग	मैला	पीला	सफेद
पिशाब की मात्रा	रुक रुक कर आना	कम आना	अधिक आना
भूख	कम	अधिक	इच्छा रहित
प्यास	अधिक	अधिक	कम
पसीना	कम	अधिक	कम
आँखों का रंग	मैला	लाल	सफेद
त्वचा	सूखी (चर्म-रोगयुक्त)	गर्म	शीतल
शरीर	स्थूल	दुर्बल	सामान्य
नाखून	गुलाबी	पीले	सफेद
बाल	कम व रूखे बालों का झड़ना	खेरा	सफेद

चक्र का नाम	संबंधित ग्रंथी	शरीर से सम्बन्ध
सहस्राधार चक्र (दर्शन केन्द्र)	पिनियल ग्रंथी	मस्तिष्क, दायीं आँख, उच्च रक्तचाप, व्यान वायु, मनोवैज्ञानिक विकार, तंत्रिका विकार।
अदन्य चक्र (ज्ञान केन्द्र)	पिट्यूटरी ग्रंथी	मस्तिष्क, बायी आँख, सायनस, नाक, कान व कान की नाड़ी, प्राण वायु।
3. विशुद्धि चक्र (विशुद्धि केन्द्र)	थायरोइड ग्रंथी	फेफड़ा, श्वास नली, आवाज, भोजन नली, आँखों का झपकना, विकास, रक्ताल्पता, थकान, एलर्जी, मासिक धर्म विकार, अपान वायु।
4 अनहत चक्र (आनन्द केन्द्र)	थायमस ग्रंथी	देवदत वायु, प्राण वायु, गंठिया, स्वार्थता, ह्रदय सम्बन्धी विकार, रक्त परिसंचरण विकार, अल्सर, आतो की सूजन।
5. मणिपुर चक्र (तेजस केन्द्र)	पेंक्रियाज ग्रंथी	भूख-प्यास, छीके, डायबिटिज, यकृत, पित्ताशय, आमाशय, तंत्रिका तन्त्र के विकार, चमड़ी के रोग।
6. स्वाधिष्ठान चक्र (स्वास्थ्य केन्द्र)	प्रजनन ग्रंथी	अपान वायु, गैस्टीक, पेट सम्बन्धी, प्रजनन प्रणाली सम्बन्धी विकार, भावात्मकता।
7 मूलाधार चक्र (शक्ति केन्द्र)	एड्रीनल ग्रंथी	रीढ़ की हड्डी, प्रोस्टेट, मलद्वार, चमड़ी, वृक्क, मूत्राशय, गर्भाशय, फेलोपियन ट्यूब, अपान वायु।

कब्ज : गैस, वायु, कारण एवं निराकरण :—

कब्ज को कोष्ठबद्धता, विवंध, मलबंध, मलावरोध, आनाह तथा विष्टब्धता आदि कई नामों से पुकारते हैं। अंग्रेजी में इसको कान्स्टीपेशन कहते हैं।

मल जब बड़ी आंत मे जमा हो जाता है और किसी कारण से अपने रास्ते से बाहर नहीं निकलता बल्कि वही पड़ा-पड़ा सड़ा करता है तो उसे कब्ज होना कहते हैं। कुछ लोगों का रोज दस्त होते रहने पर भी कब्ज बना रहता है, और कुछ व्यक्ति ऐसे होते है जिन्हें दो-दो दिन के बाद में एक बार पाखाना होने पर भी कब्ज नहीं रहता। इसलिये हम मे से बहुतों को यह मालूम नहीं रहता कि कब कब्ज रहता है और कब नहीं? परन्तु यह सत्य है कि आजकल 99 प्रतिशत व्यक्ति इस रोग के शिकार हैं।

कब्ज के रोगी को पाखाना साफ नहीं होता, हमेशा सुस्ती छाई रहती है, पेडू कठोर और पेट भारी रहता है, सिर मे दर्द रहा करता है, नींद ठीक से नही आती, मस्तिष्क खाली सा जान पड़ता है, भूख खुल कर नही लगती तथा उसे अन्य कई रोग रहते हैं। कोष्ठबद्धता को सब रोगो का जन्म-दाता कहा जाता है। इसमें तनिक भी अतिशयोक्ति नहीं है।

मनुष्य शरीर में दो प्रधान कार्य अनवरत रूप से जीवन-पर्यन्त होते हैं। प्रथम जो कुछ भी हम खाते या पीते हैं वह जठराग्नि के संयोग से अनियन्त्रित जीवनी शक्ति द्वारा हमारे शरीर से मिलकर एकाकार होता रहता है। शरीर की इस क्रिया को हम एकीकरण (Assimilation) कहते हैं। द्वितीय, जो शरीर के भीतर पहुंची हुई वस्तु शरीर से मिलकर विद्रूप नही बन सकतीं, अर्थात् विजातीय द्रव्य अथवा शरीर के लिए विकार रूप हैं, विष हैं, शरीर उनको बाहर निकाल फेंकने का प्रयत्न सदा-सर्वदा किया करता है। शरीर की यह क्रिया बहिष्करण (Elimeination) कहलाती है। इसी क्रिया के लिए पाखाना-पेशाब होते हैं, और नाक, कान, आंख तथा खाल आदि से सदैव मल का पसीना निकला करता है। स्पष्ट है कि शरीर मे होने वाले दोनों कार्यों में बहिष्करण की क्रिया एकीकरण की क्रिया से अधिक आवश्यक और उत्तम स्वास्थ्य के लिये परमोपयोगी है। कारण यदि दो, चार, दस दिन या दो-एक महीनों तक मनुष्य भोजन न करे तो वह मर नहीं जायेगा, किन्तु एक दिन के लिए मनुष्य का पाखाना-पेशाब रुक जाय तो वह कदापि जीवित नही रह सकता है। शरीर की इस परमावश्यक क्रिया में अड़चन पड़ने का नाम मलावरोध, कोष्ठबद्धता या कब्ज है।

यदि हम अपने शरीर को एक बड़े शहर से उपमा दें तो कोष्ठ-प्रदेश को उसका सबसे बड़ा कूड़ाखाना मानना पड़ेगा। वह कूड़ाखाना यदि प्रतिदिन नियमित रूप से साफ न होता रहेगा तो निश्चय ही शरीर रूपी शहर मे रहने वाले अगणित अङ्गोपाङ्ग रूपी नगर-वासियों का स्वास्थ्य खतरे में पड़ जायेगा और वे बीमार हो जायेंगे इसलिये यदि हम पूर्ण स्वस्थ रहना चाहते हैं तो हमे कब्ज कभी नही होने देना चाहिये।

खान-पान का असंयम कब्ज का मूल कारण है। अनाप-शनाप खाते रहने, ठूंस-ठूंस कर खाने, बिना भूख के खाने तथा भोजन सम्बन्धी अन्य नियमो के पालन न करने से कोष्ठबद्धता की शिकायत है

मलावरोध के दुष्परिणाम :—

जैसा कि ऊपर कहा जा चुका है शरीर के लगभग सभी रोगों के मूल मे मलावरोध अवश्य होती है, जिसके कारण रोगो की तीव्रता बढ़ जाती है। डा. हाव कहते हैं—शरीर से विजातीय द्रव्य का बाहर निकलना जब बन्द हो जाता है तब हर्निया, अलसर तथा हृदय और मूत्राशय के रोग उत्पन्न होते हैं।''

हमारी आंतो में खाद्य पदार्थों का रस चूसने का कार्य अविराम गति से चलता रहता है। पर जब उन्हीं आंतो में मल जमा होकर सड़ने लगता है तब हमारी आंते उस जमा हुये मल से उसके विष को भी चूसती हैं और चूसकर उस विष को रक्त में मिला देती हैं, जिससे रक्त विषाक्त हो जाता है जो नाना प्रकार के रोगो का कारण होता है। तब मनुष्य को आवेग (गुस्सा) ज्यादा आता है।

चिकित्सा :—

कब्ज होने पर बहुधा लोग जुलाब लेते हैं। किन्तु अनुभव से जाना गया है कि यह प्रयोग अंतड़ियो के लिये अत्यन्त हानिकारक है। चिकित्सको की राय मे सदैव जुलाब लेना भी कब्ज पैदा करता है। इसलिए कब्ज में जुलाब न लेकर यदि पहले गुनगुने पानी का तत्पश्चात् ठंडे पानी का एनिमा कुछ दिनो तक लिया जाय तो बहुत लाभकारी सिद्ध होता है। यह सवाल गलत है कि एनिमा लेने से एनिमा की आदत पड़ जाती है।

नीचे कब्ज दूर करने के लिये कुछ अनुभूत उपचार दिये जाते हैं जिनको विधिवत चलाने से पुराने से पुराने कब्ज को भी कुछ ही दिनों मे दूर किया जा सकता है—

1. जिन कारणो से कब्ज होता है उनको सर्वप्रथम दूर करना चाहिये।
2. एक दिन केवल जल पीकर उपवास करना चाहिए फिर दो दिन तक रसाहार। रसाहार के लिए गाजर और पालक के रस उत्तम रहेगे। तत्पश्चात् 7 से 15 दिनों तक फलाहार। इन दिनों दोनो वक्त एनिमा लेना चाहिए। फलाहार के बाद एक वक्त दूध-फल और दूसरे वक्त रोटी, सब्जी, दही और सलाद। भोजन में फल और सब्जी की मात्रा अन्न से हर हालत में दूनी रहनी चाहिए। जब कब्ज दूर हो जाय तो सादे और सात्विक भोजन पर आ जाना चाहिए। चोकरसमेत आटा, फल, धारोष्ण दूध, ताजी साग सब्जियां—उबली और कच्ची, सादे और सात्विक भोजन वाले खाद्य पदार्थ महत्वपूर्ण हैं। घी, तेल, अचार, खटाई और मिठाइयां गुरुपाक होने से उनका सेवन कदापि युक्तिसंगत नहीं है

और मिर्च-मसाले आदि का मोह तो सबसे पहले त्यागना होगा।

सुबह सोकर उठते ही परन्तु सूर्योदय के प्रथम सायंकाल का रखा हुआ शुद्ध जल लगभग आध सेर या जितना आसानी से पिया जा सके, धीरे धीरे पीकर उसके थोड़ी देर बाद शौच जाना कब्ज को अति शीघ्र दूर करता है। इसी प्रयोग को वैद्यक शास्त्रो मे 'उपापात' कहा गया है। इसके अनेक गुण है।

सप्ताह मे एक दिन उपवास करने का नियम बना लेना चाहिए। उस दिन ताजे जल में कागजी नीबू का रस मिला कर काफी मात्रा मे पीना चाहिए।

प्रतिदिन नियमित रूप से कोई हल्का व्यायाम और गहरी सांस लेने की कसरते अवश्य करनी चाहिएं। सुबह शाम 3 से 5 मील तक शुद्ध वायु मे तेजी के साथ टहलना एक अच्छा व्यायाम है।

प्राकृतिक चिकित्सा विशेषज्ञ लुईकूने ने बालू को कब्ज की अचूक दवा कहा है। एक चुटकी समुद्री साफ बालू भोजन के बाद दिन मे दो तीन बार पानी के सहारे निगल लेना चाहिए। ऐसा करने से दूसरे ही दिन आंते ढीली पड़ जाती हैं और उनमे जमा पुराना मल निकलना प्रारम्भ हो जाता है, जिससे कुछ ही दिनो मे कब्ज से निजात मिल जाती है।

1 छटांक गेहूं का साफ चोकर सवेरे शाम भोजन में मिलाकर खाने से भी कब्ज दूर होती है। चोकर को चाहे जैसे खाया जा सकता है—रोटी मे मिलाकर, तरकारी में मिलाकर या दाल में डालकर।

आधे गिलास ठंडे पानी में एक कागजी नीबू का रस डालकर दिन मे 4 से 6 बार तक पीना इस रोग में लाभ करता है।

एनिमा द्वारा प्रातःकाल गुनगुने पानी से जिसमे दो-तीन बूंद कागजी नीबू का रस मिला हो, पेट साफ कर लेना चाहिये। इस प्रयोग को जब भी पेट भारी हो, करना चाहिये।

भोजन करने के आधा घंटा पहले थोड़ा गुनगुना पानी पीना लाभ करता है।

भोजन के साथ जल बहुत कम या बिल्कुल ही न पिया जाय। भोजन करने के दो घटा बाद इच्छानुसार जल पीना चाहिये।

प्रातः सायं शक्ति अनुसार 5 से 20 मिनट तक उदर स्नान करना, या पेडू पर एक घंटे तक मिट्टी की पट्टी बांधना लाभकारी है

13. मल विसर्जन में कभी विलम्ब नही करना चाहिये।

रोगों का मूल कारण

जब कोई भी व्यक्ति अपने शरीर के गुण-धर्म और क्षमता को बिना जाने आहार-विहार, खानपान, निद्रा, व्यायाम इत्यादि प्रकृति के नियमो की लम्बे अन्तराल तक अवहेलना करता है तो उसके शरीर में अवांछनीय रासायनिक द्रव्य उत्पन्न होकर रक्त प्रवाह में अवरोध पैदा करते हैं। मनुष्य के बनाए हुए यन्त्रों को गतिशील रखने के लिए जिस तरह भाप, केरोसीन, पेट्रोल या बिजली की आवश्यकता होती है उसी तरह परमपिता परमेश्वर के द्वारा बनाए गए इस विशाल कारखाने के रूप मे स्वचालित (अंग) यन्त्र अविराम गति से गतिशील रहें इसके लिए कारखाने को अर्थात् यन्त्र को खून की आवश्यकता होती है।

शरीर के हर कलपुर्जे व नाड़ी संस्थान को सुव्यवस्थित सप्रमाण खून मिलता रहे इसकी प्रकृति मां ने उत्तम व्यवस्थ कर रखी है। इस व्यवस्था मे ऊपर बताए गए व्यर्थ द्रव्य बाधा पैदा करते हैं और जब आवश्यक खून सभी अगों को पर्याप्त मात्रा मे नही मिलता तो शरीर के महत्त्वपूर्ण अंगों में शिथिलता आ जाती है और मनुष्य मे कार्य करने की क्षमता धीरे-धीरे घट जाती है।

रोगों का मूल कारण विषयो का अतियोग, मिथ्यायोग एवं वात, पित्त और कफ का कुपित होना है एवं प्रकृति के नियमो का लम्बे अन्तराल तक उल्लंघन करना है।

आत्मिक बीमारियां ही शारीरिक बीमारियों का मूल कारण :–

जब आत्मिक बीमारियां जिसमे दुश्चिन्ता, कुबुद्धि, क्रोध और अहं अशुद्ध संस्कार हमारे पचतत्त्व के शरीर मे विचरण करती हैं तो शरीर का संतुलन बिगड़ जाता है फलस्वरूप शारीरिक बीमारियों का उद्‌भव होता है। आत्मिक बीमारियों के कारण हुई शारीरिक बीमारियो का इलाज किसी हकीम, वैद्य अथवा डॉक्टर के पास नही होता। इसलिए आत्मिक बीमारियो को संतुलित बनाए रखना ही स्वस्थ शरीर की देन है।

"मनुष्य के शरीर मे पचास प्रतिशत से ज्यादा बीमारियाँ हीनता, भय और आत्मविश्वास की कमी के कारण होती है। परिणामस्वरूप शरीर के हारमोन्स असंतुलित हो जाते है और प्रकृतिप्रदत्त शरीर की प्रतिरोधात्मक शक्ति धीरे-धीरे क्षीण होने लगती है।

'प्रो स्कीनर न्यूयार्क ने 'साइकोसजेस्टिव थेरेपी' को विकसित करने पर

बल दिया है। इस चिकित्सा के जरिये रोगी के आत्मविश्वास और दृष्टिकोण मे परिवर्तन लाना है, जिससे मनुष्य की अन्त शक्ति (Will Power) को जागृत करना होता है। जो रोगी अपने दृष्टिकोण बदलने व आत्मविश्वास जागृत करने में सफल हुए हैं वे आश्चर्यजनक रूप से ठीक हो जाते है। परिणामस्वरूप उनके सोच-समझ का नजरिया बदल जाता है और दुश्चिन्ता, हीनता के संस्कार से ऊपर उठते हैं। उठने का प्रयास नहीं करते वे धीरे-धीरे जीवन शक्ति खो बैठते हैं और जीवन के प्रति उनका लगाव शून्य हो जाता है। अतः जीवन के प्रति रुचि पैदा कर विचारशक्ति, इच्छाशक्ति, संकल्पशक्ति और कर्मशक्ति के बल पर मनुष्य जीवन को सुखमय व निरोग बनाये रख सकता है। चिकित्सक का मुख्य कार्य भी रोगी के आत्मबल, विचारशक्ति, एवं संकल्पशक्ति उत्पन्न करने की प्रेरणा देना है जिससे ईश्वर द्वारा दी गई 100 वर्ष की आयु का वह स्वस्थ रह कर उपभोग कर सके।

प्रायः मां-बाप अपने बच्चो को आधुनिकीकरण के दायरे में रहकर दवाइयो के बल पर उन्हें स्वस्थ एवं हृष्टपुष्ट बनाना चाहते हैं जो सर्वथा अन्धानुकरण एवं प्रकृति विरुद्ध है। वस्तुत: प्रकृति के साये मे पलकर, सामाजिक वातावरण के परिवेश मे रहकर, प्रकृति के नियमो का पालन करने से जो स्वास्थ्य प्राप्त किया जा सकता है उसकी बराबरी चिकित्सा विज्ञान अथवा आधुनिक परिवेश नही कर सकता।

आहार के प्रकार

"जैसा खाये अन्न, वैसा बने मन" शास्त्रानुसार हमारे ऋषि-मुनियों ने आहार को मुख्यतः तीन श्रेणियो में विभाजित किया है :—

1 सात्विक आहार, 2. राजसी आहार, 3 तामसी आहार

सात्विक आहार :—

शास्त्रो मे सतोगुणी आहार को सर्वश्रेष्ठ आहार माना गया है। महान पुरुष स्वामी विवेकानन्द के मतानुसार मनुष्य का शरीर भगवान का मन्दिर है, इस मन्दिर मे बैठे भगवान को जैसा भोग लगाया जायेगा वैसी ही उसकी वृत्ति बनेगी। तभी यह कहावत चरितार्थ होती है कि 'जैसा खाये अन्न वैसा बने मन'।

सात्विक आहार लेने से मन, वचन और कर्म से मनुष्य सात्विक विचारो का बनता है, वह सदा दूसरों के कल्याण में लगा रहता है।

अतः आहार यदि मर्यादा के विपरीत लिया जाता है तो वह खाने वाले को

ही खा जाता है

प्रकृति के सानिध्य में पके कन्द मूल, फल, शाक-सब्जियाँ, सभी प्रकार की दाले, कम मिर्च मसाले से बना भोजन, घी, दूध, दही इत्यादि सभी खाद्य पदार्थ उच्च कोटि के सात्विक आहार माने गये हैं। गीता मे कहा गया है—

युक्ताहारविहारस्य युक्त चेष्टस्य कर्मसु ।
युक्त स्वप्ना बोधस्य योगो भवति दुःखही ।।

—(गीता 6 अध्याय, श्लोक 17)

यदि हम वह खाते हैं जो हमे नहीं खाना है तो हम वह भुगतते हैं जो हमे नही भुगतना चाहिये। ठीक उसी प्रकार से यदि मनुष्य ऐसे कर्म करता है जो कि मर्यादा के विपरीत हो उसका भी मानव जीवन पर दुष्प्रभाव ही पड़ता है।

राजसी आहार :—

राजसी वृत्ति के लोग रजो गुणी भोजन को पसंद करते हैं। इसमें सभी प्रकार के मिर्च मसाले, अधिक चिकनाई युक्तः खट्टे-चटपटे-स्वादिष्ट मिठाइयाँ, फल इत्यादि आहार सम्मिलित हैं। जिसका प्रचलन तीज त्यौहार, विवाहोत्सव इत्यादि अवसरों पर देखने को मिलता है।

ऐसे आहार सेवन से मनुष्य आसक्तियुक्त कर्मों के फल को चाहने वाला, लोभी प्रवृत्ति तथा दूसरों को कष्ट देने के स्वभाव वाला बनता है। (गीता 18/26 श्लोक)।

तामसी आहार :—

यह भोजन तामसिक श्रेणी में आता है। इस आहार में उत्तेजक पदार्थों का बाहुल्य होता है जैसे लहसुन, प्याज, तेज मिर्च-मसाले, घी, दूध, अण्डे, माँस, मछली, शराब इत्यादि, जिनके सेवन से शरीर में गर्मी व उत्तेजना पैदा होती है और मनुष्य झगड़ालू, क्रूर, विध्वंसक विचारो का बनता है।

"जो विक्षेपयुक्त चित्तवाला, शिक्षा से रहित, घमंडी, धूर्त और दूसरे की आजीविका का नाशक एवं शोक करने के स्वभाव वाला आलसी और दीर्घसूत्री है, वह कर्त्ता तामस कहा जाता है।" (गीता अध्याय 18, श्लोक 28)

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अध्याय-21

वजन घटाने-बढ़ाने हेतु आहार चिकित्सा

(Dietics Cure for Reduce & Increase of Weight)

नाश्ता प्रातः 7 बजे :

सोमवार	एक कप चाय, 2 बिस्किट या एक गिलास दूध	*अमृत भोजन (अंकुरित अनाज)*
मगलवार	बाजरी का दलिया व दही, छाछ	1 मूंग 50 ग्राम या एक मुट्ठी
बुधवार	एक प्याला अंकुरित अनाज	2 उड़द 50 ग्राम या एक मुट्ठी
गुरुवार	सांभर इडली या डोसा	3 मूंगफली 50 ग्राम या एक मुट्ठी
शुक्रवार	200 ग्राम दूध व एक सेव	4 सोयाबीन 50 ग्राम या एक मुट्ठी
शनिवार	दलिया या दाल	5 काले चने या राजमा 50 ग्राम
रविवार	200 ग्राम दूध व एक कटोरी थूली (मिक्स फल), अनार, पपीता, अंगूर, सेव, गाजर, मौसमी, आलुबुखारा या नींबू की शिकंजी, कच्चे नारियल का पानी	

प्रातःकालीन भोजन : *दोपहर का नाश्ता (फल)*

सोमवार	अमृत भोजन	1 कच्चे नारियल का पानी
मगलवार	पालक-दाल व लूखी चपाती (कम घी, तेल का सेवन)	2 नींबू की शिकंजी

मेथी, दाल व लूखी चपाती का सेवन	3 मौसमी या नारंगी का रस
कढ़ी, दही व लूखी चपाती का सेवन	4. सेव या पपीता
भिंडी की सब्जी, रायता, दाल व लूखी चपाती	5 मलाई रहित लस्सी
चने की सब्जी, रायता, दाल व लूखी चपाती	6 सेव या आलूबुखारा
चंदलाई की सब्जी, छाछ का रायता, चावल, चपाती	7. मतीरा या आलूबुखारा

...ीन भोजन :

लूखी चपाती व दाल-नीबू	
लूखी चपाती व कढ़ी, पालक की सब्जी	
लूखी चपाती व मेथी-दाल की सब्जी	
लूखी चपाती व चन्दलाई की सब्जी	नोट : तली हुई वस्तुएं, अधिक मिर्च मसाले व अधिक घी-तेल खाना वर्जित है।
लूखी चपाती व दाल-पालक	
लूखी चपाती व उड़द की दाल	
दाल चावल व नींबू (मिक्स सलाद)	

वजन बढ़ाने हेतु आहार चिकित्सा

...स	प्रातः नाश्ता	प्रातः भोजन	दोपहर का नाश्ता	सायंकालीन भोजन	आवश्यक निर्देश
...वार	अष्टामृत या अमृत भोजन 100 ग्राम पालक 2 नग मौसमी 5 पत्ते तुलसी (श्याम) 2 पत्ते नीम 1 नींबू या आंवला 1 तर ककड़ी 1 टमाटर 1 गाजर या चुकन्दर	चुपड़ी चपाती व दाल चावल	दूध व केला	चपाती व आलू मटर	मिक्स सलाद

सोमवार	अमृत भोजन अंकुरित अनाज 20 ग्राम मुगफली 20 ग्राम सोयाबीन 20 ग्राम काले चने 20 ग्राम उड़द 20 ग्राम मूंग	दाल चावल	दूध व केला	चपाती- पालक पनीर	घृत व दूध
मगलवार	अंकुरित अनाज	आलू गोभी चपाती	आम दूध या पपीता	चपाती पालक पनीर	घृत व दूध
बुधवार	दूध, घृत, फल	चन्दलिया चपाती	मौसमी नारियल पानी	खिचड़ी, कढ़ी या दाल	गलवाणी, हलुआ
गुरुवार	हलुआ	गुड़ा रोटी पालक	गाजर का रस	अदरक, हल्दी, चपाती	दूध
शुक्रवार	तिल के लड्डू	अदरक, हल्दी, रोटी	अनार या गाजर रस	रस खीर आलू चपाती	घृत व दूध
शनिवार	नींबू या शहद	चना या मूग की दाल व चपाती	मौसमी, नारंगी या पपीता	खीर शकरकन्द चावल मूंग की दाल	घृत व दूध

प्रात- उड़द के लड्डू, मेथी का लड्डू एक माह लगातार सेवन करने से वजन शीघ्र बढ़ने लगता है।

कब्ज, बवासीर (Piles-Hemorrhoids)

आहार चिकित्सा द्वारा बवासीर एवं 'अल्सरटिक पाइल्स' का निराकरण—

— एक गिलास गर्म पानी सेवन करें व एक तुलसी का पत्ता सेवन करें—

नाश्ता : 250 ग्राम — पपीता
200 ग्राम — दूध
या
एक सेव एवं दूध

भोजन : 1. चावल मूँग की खिचड़ी — 2 चम्मच
दूध या दही के साथ
2. सलाद इच्छानुसार

— कच्चे नारियल का पानी, संतरा, मौसम्मी — 7 दिन त
केला तरबूज पपीता, लीची खरबूजा,
पीया अगूर आलुबुखारा

(कोई एक फल अपनी रुचि अनुसार लेवें)

सायंकालीन — चावल मूँग की खिचड़ी,
भोजन दूध के साथ

सोते समय दूध के साथ दो चम्मच
ईसबगोल लेवें।

मानव शरीर के लिये अलग-अलग रंगों के फलों का महत्त्व

1. लाल रंग के फल व उसका महत्त्वः (लोह तत्व)

शरीर से विजातीय द्रव्यों का विसर्जन करने के लिए प्राकृतिक चिकित्सा में लाल रंग के फल श्रेष्ठ माने गए हैं।

1 तरबूज
2. चुकन्दर
3. गाजर
4. अनार
5. आलुबुखारा
6 अंजीर
7. देशी अमरूद

2 पीले रंग के फलों का महत्त्वः (स्वर्ण-तत्व)

शरीर की प्रतिरोधात्मक शक्ति बढ़ाने व पाचन क्रिया को सबल बनाने के लिये पीले रंग के फल गुणकारी हैं।

1. पपीता
2. काशीफल
3. आम
4. बील
5. राणी

3. सफेद रंग के फलों का महत्व : (चन्द्र-तत्व)

सफेद व हरे रंग के फल मानसिक शांति, सिरदर्द में अति गुणकारी हैं।

1. सेब
2. केला
3. कर ककड़ी
4. खीरा
5. अनानास
6. मौसमी
7. खरबूजा

वजन घटाने हेतु आवश्यक निर्देश	1. प्रातः उठते ही 250 ग्राम पानी व एक नींबू का सेवन करना। 2. रस्सी कूदना, जोगिंग करना, पहाड़ो का भ्रमण करना, नंगे पांव हरी घास पर भ्रमण करना, एक्युप्रेशर उपकरण (फुट रोलर का पांव के तलवों के नीचे चलाना) और प्रकृति के नियमो का पालन करना।

'सर्वे भवन्तु सुखिनः, सर्वे सन्तु निरामया

अनेक रोगों की एक दवा - तुलसी : आरोग्य के लिए तुलसी एक संजीवनी बूटी है। इसके लगातार तीन माह सेवन करने से जुकाम (साइनस) की प्रवृत्ति, जन्मजात जुकाम, श्वाँस रोग (दमा), स्मरण शक्ति का अभाव, सरदर्द, कब्ज, गैस, गुर्दों का ठीक से काम न करना, गठिया, विटामिन 'ए' व 'सी' की कमी तथा मासिक धर्म मे अनियमितता, इन सभी बीमारियो मे तुलसी का प्रयोग राम-बाण औषधि का काम करता है।

प्रयोग विधि : तुलसी की पाच से दस पत्तियाँ स्वच्छ खरल या सिलबट्टे (जिस पर मसाला न पीसा गया हो) पर चटनी की भांति पीस ले और 10 से 30 ग्राम मीठे दही में मिलाकर नित्य प्रातः खाली पेट तीन मास तक खायें। ध्यान रहे दही खट्टा न हो और यही दही माफिक न आये तो एक-दो चम्मच शहद मिलाकर ले। दूध के साथ भूलकर भी न ले। औषधि प्रायः खाली पेट ले। आधा-एक घण्टे बाद नाश्ता ले सकते हैं। दवा दिन मे एक बार ही लें। परन्तु कैंसर जैसे असह्य दर्द और कष्टप्रद रोगों में 2-3 बार भी ले सकते हैं।

पृथ्वी की संजीवनी—गेहूँ के जवारे :

प्राकृतिक चिकित्सा प्रणाली के अनुसार गेहूं के जवारे तथा श्यामा (काली) तुलसी के रस का एक माह तक सेवन से रक्त दोष, गठिया, नाड़ी रोग अथवा कैंसर उपचार मे उपयोगी पाया गया है। प्राकृतिक चिकित्सा मे इस रस को हरा खून कहा जाता है तथा हरा खून कैंसर उपचार में विशिष्ट उपयोगी पाया गया है।

गेहूं के जवारों की निरन्तर उपलब्धि हेतु सात गमलों में गेहूं बो दे। जब जवारो की लम्बाई छः इन्ची हो जाये तो पहले गमले के जवारे निकाल लें तथा दूसरे पुनः बो दें अगले दिन गमले के जवारे काम में लिए जायें। इस प्रकार जवारों की निरन्तर बनी रहेगी

गेहूं के जवारे तथा श्यामा तुलसी के पाँच पत्तों के साथ पीसकर रस निकाल लें। एक खुराक 100 मिली लीटर रस की है। यह खुराक प्रातः खाली पेट सूर्य रश्मियों का सेवन करते हुए उपयोग करें।

Vata, Pitta, and Kapha

Vata : There are five kind of Vata coincide to the duty and the position of movement. As referred to in front of, Vata direction the movement and conduct of the physique. Its important duty contain :

* generosity action to the body.
* the conduction of discharge from visual means.
* the disconnection of Rasa (food) and Kitta (urinate) from diet
* the emission and removal of urine and sperms.
* the organic structure duty of the physique.
* the bio-physical direction of the memory.
* the excitement of reason means.
* the law of remark, tangible reason and audience.
* usual rotation in the physique.
* being formed and progress of the foetus.

Where there is a disturb in the Vata, it bear psychoanalysis confusion and detriment of weight, destruction of biological and bodily energy and hearted inherent deformities.

Pitta : Pitta is located in the spleen and liver and is a output of blood. The chemical and endocrine act of the physique are composed by the five kind of pitta accounted in Ayurvedic books. Pitta is blue and yellow in colour, whitish, fluid viscous, sour, bitter, fat, heated and stinking. Its fundamental duty contain :

* bestowal colour to life's blood.
* promotion inhalation.
* unduly favourable sight.
* creation of physique warmth, desire hunger

- advance of colour, mentality and bravery.

Kapha : Kapha is chiefly accountable for the creation in the physique. Liken to Vata and Pitta, Kapha is a specific object made often of water. It is white, flesh sugary, smooth, fixed and powerful. The usual duty o kind of Kapha contains :

- restraining the different form of the physique ar
- proclaiming oiliness.
- generating balance, energy and toughness.
- auxiliary recovering, and other bodily cellular erection.
- assisting the physique to oppose ailment.
- furnishing calmness, courage and mentality.

Perfect Weight Sketch for Men and Women Family Weig

	Soul	Partner	Kid	Kid	Daddy
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

ight (nches)	Small Frame (kg)		Medium Frame (kg)		Large Frame (kg)	
Women	Men	Women	Men	Women	Men	Women
4 11	50.5/54.5	42.0/44.5	53.5/58.5	43.5/48.5	57 0/64.0	47 0/54 0
11	52.0/56.0	42.5/46.0	55 0/61.0	44.5/50 0	58.5/65.0	48.0/55 0
5.0	53.5/57.0	43.5/47.0	56.0/62.0	46 0/51 0	60 0/67 0	49.5/56.5
1	55 0/58.5	45 0/48.5	57.5/63.0	47.0/52.5	61.0/69.0	51 0/58 0
2	56 0/60.0	46 5/50 0	58 5/65.0	48.5/54 0	62.5/71.0	52.0/59 5
3	58 0/62.0	47 5/51.0	60.0/66.5	50.0/55 0	64 5/73.0	53 5/61 0
4	60.0/64.0	49 0/52.5	62.5/69 0	51.0/57.0	66 5/75.0	55 0/62.0
5	62.0/66.0	50 5/54.0	64.5/71 0	52.5/58.5	68.5/77.0	57 0/64 5
6	63.5/68 0	52.0/56 0	66.0/72 5	54 5/61.0	70 0/79.0	57.0/64 5
7	65 0/70.0	53.5/57 5	68 0/75.0	56 0/63.0	72.0/81.0	58.5/66 0
8	67 0/71 5	55 0/59 5	70 0/77 0	58 0/65 0	74 0/83 5	60 0/68 0
9	69 0/73 5	57 0/61 0	71.5/79 0	60.0/66 5	76 0/85 5	62.0/70 0
10	71.0/76 0	58.5/63.5	73 5/81 5	62.0/68 5	78 5/88 0	64 0/71 5
11	72.5/77 5	61 0/65 0	76 0/84 0	63.5/70.0	80 5/90 5	66 0/74 0
6.0	74.0/79.0	63.0/67.0	78.0/86.0	65.0/72.0	82.5/92.5	69 5/78 5

CALORIES USING CHART

mployment	Weight of the Active Person (Kg)					
	50	58	65	75	85	95
	180	204	228	252	276	300
	114	126	138	150	162	174
	198	222	246	270	294	324
	174	198	222	246	270	294
	180	204	228	252	276	300
	90	102	120	132	150	168

Badminton	ndiv dual	276	312	348	384
	Pa red	234	270	306	342
Dancing	aerobic	348	396	444	492
	contemporary	198	228	258	252
Golf	driving	198	228	258	288
	putting	120	138	156	174
	foursome 9 holes in 2 hrs	204	234	264	294
	twosome 9, 1 1/2 hrs.	276	318	360	402
Hill Climbing		468	456	510	564
Run in place	50:60 steps / m	402	456	510	564
	70 80 steps / m	438	498	558	618
Running	9 km per hr	516	594	660	732
	11 km per hr	552	624	696	768
	12 km per hr.	594	672	816	960
Swimming	gradual	234	270	306	342
	average	426	480	534	594
	quick	540	618	696	774
Tennis	individual	336	378	420	462
	paired	234	270	306	342
Walking	3 2 km per hr	144	168	192	216
	4.8 km per hr	234	270	306	342
	6 4 km per hr.	270	312	354	396
	8.0 km per hr	438	498	558	618
Yoga		180	204	228	252

Cook ng		42	65	92	216	240
Card P ay ng		78	90	02	4	32
Eatng		78	84	90	96	02
Showerng		156	180	204	228	252
Sittng quetly		66	72	84	96	108
Sittng		78	90	102	114	132
Sleepng		54	60	66	72	78
Watng m line		78	90	102	114	132
Watchng TV		66	78	90	96	102

Peculiar and Particular Nutrition

Entire menu presented here have been planned with regarc to the usual pattern of the Indian Adult Male of 150 cms/48 kgs To compute your caloric need (for light movement) increase you Complete Body Density into 35.

Mature Male with Perfect Body Weight Measure (1680 keal)

Boiled meal	160 gms
Vegetative	300 gms
Roots and Rootstock	100 gm.
Dal	50 gm.
Seafood	100 gms
Chicken	75 gms
Fruit	200 gms
Liquid Milk	500 m
Malt sugar	20 gms
Edible oil	20 gms/4tsp
Egg	1 nc

Model : Menu

Bed Tea

- Tea or Coffee with 30 ml milk and 1tsp. sugar.

Breakfast

- Bread : 2 slices.
- Egg : 1
- Fruit : 100 gms.
- Milk : 180 ml.

Meal

- Seeds or Roti : 60 gms.
- Dal : 25 gms.
- Vegetative : as desired.
- Salad : as desired.
- Seafood : 100 gms.

Night Tea

- Tea or Coffee with 30 ml liquid milk and furthermore fruit sugar.

Principal meal of the day

- Seeds or Roti : 50 gms.
- Dal · 25 gms.
- Vegetative : as desired.
- Chicken : 75 gms.
- Milk pudding shaped of 250 ml milk

Notation : ● Liquid milk can be used up in any kind as perferred.
● Menu may be replaced in reach of remedial portion
● Edible oil and sucrose should not exceed portion.

Mature Male along with Diabetes Portion (1600 keal)

Celreals	160 gms.
Vegetative	400 gms.
Dal	30 gms.
Seafood	100 gms

Chicken	75 gms.
Mature seed pod (Fruits)	100 gms.
Liquid milk	500 ml
Edible oil	20 ml/4tsp.

Sample Menu

Breakfast
Baked goods : 50 gms.
Chana or 250 ml milk.
Tea / Coffee not with *sucrose*.
Mature seed pod (Fruits) : 100 gms.
Meal and Lunch
Seeds or Roti : 40 gms.

अध्याय-22

Nutrition

NUREIWNRA IN DOOSARUDD PWE 100 GM OF EDIBLE PORTION

Sl. No.	Name of Foodstuff	Protein (gm)	Carbohydrate (gm)	Fat (gm)	Calcium (mg)	Iron (mg)	Vit.A Carotene (mg)	Thiamine B1 (mg)	Riboflavin B2 (mg)	Niacin (mg)	Vit.C (mg)	Energy
	GENERAL GRAINS											
1.	Wheat flour (Whole)	12.1	69.4	1.7	48	11.5	29	0.49	0 29	4 3	0 0	341
2	Wheat (Bulgar)	8.2	77 2	1.6	37	4.9	—	0.74	0 11	4 8	0.0	356
3.	Suji (Semolina)	10 4	74 8	0 8	16	1.6	—	0.12	0 03	1.6	0 0	348
4	Rice (Parboiled Milled)	6 4	79 0	0.4	9	4 0	—	0 21	0 05	3.8	0.0	346

5.	Rice (Raw Milled)	6.8	78.2	0.5	10	3.1	—	0.06	0.06	1.9	0.0	345
6.	Rice (Puffed)	7.5	73.6	0.1	23	6.6	—	0.21	0.01	4.1	0.0	325
7.	Ragi	7.3	72.0	1.3	344	6.4	542	0.42	0.19	1.1	0.0	328
8.	Maize	11.1	66.2	3.6	10	2.0	90	0.42	0.10	1.8	0.0	342
9.	Jowar	10.4	72.6	1.9	25	5.8	47	0.37	0.13	3.1	0.0	349
10.	Bajra	11.6	67.5	5.0	42	5.0	132	0.33	0.25	2.3	0.0	361
11.	Bread	7.8	49.0	0.7	18	2.2	—	0.21	—	2.5	—	244
12	Sago	0.2	87.1	0.2	10	1.3	—	0.01	—	0.2	—	351
13.	Cane Sugar	0.1	99.4	0.0	12	—	—	—	—	—	—	398
	PULSES & LEGUMES											
14.	Bengal Gram Dal (Chana)	20.8	59.8	5.6	202	10.2	189	0.30	0.15	2.9	3.0	360
15.	Black Gram Dal (Urd)	24.0	59.6	1.4	154	9.1	38	0.42	0.20	2.0	0.0	347
16.	Green Gram Dal (Moong)	24.0	56.7	1.3	124	7.3	94	0.47	0.27	2.1	0.0	334
17.	Red Gram Dal (Arhar)	22.3	57.6	1.7	73	5.8	132	0.45	0.19	2.9	0.0	335
18	Lentil (Masur)	25.1	59.0	0.7	69	4.8	270	0.45	0.20	2.6	0.0	343
19.	Rajmah	22.9	60.6	1.3	260	5.8	—	—	—	—	0.0	346
20.	Soyabean	43.2	20.9	19.5	240	11.5	426	0.73	0.39	3.2	—	432

	FATS & EDIBLE OILS											
21	Butter	—	—	81 0	—	—	3200	—	—	—	—	729
22.	Chee	—	—	100 0	—	—	900	—	—	—	—	900
3	Hydrogenated Oil (Fortified)	—	—	100 0	—	—	2500	—	—	—	—	900
24	Cooking Oil (Groundnut)	—	—	100 0	—	—	—	—	—	—	—	900
	LEAFY VEGETABLES & OTHER VEGETABLES											
25.	Amaranath Tender (Cholai sag)	4 0	6 1	0 5	397	25 5	5520	0 03	0 30	1 2	99 0	45
26	Bathua Leave	3.7	2 9	0 4	150	4.2	1740	0 01	0 14	0.6	35 0	30
27	Bengal Gram Leave	7 0	14 1	1 4	340	23 8	978	0 09	0 10	0 6	61 0	97
28	Conander Leaves (Dhania leaves)	3.3	6.3	0 6	184	18 5	6918	0 05	0 06	0 8	135 0	44
29	Drumstick Leaves (Sajna)	6 7	12 5	1.7	440	7 0	6780	0 06	0 05	0 8	20 0	92
30	Fenugreek Leaves (Methi)	4 4	6 0	0 9	395	16 5	2340	0 04	0 31	0 8	53 0	49
31	Mint (Podina)	4 8	5 8	0 6	200	15 6	1620	0 05	0 26	1.0	27 0	48
32	Mustard Leaves (Sarson ka sag)	4 0	3 2	0 6	155	16 3	2622	0 03	—	—	33 0	34
33.	Radish (Mooli)	3 8	2 4	0 4	265	3 6	5295	0 18	0 47	0 8	81.0	28
34.	Spinach Palak	2 0	2 9	0 7	73	10 9	5580	0 03	0 26	0 5	28 0	26
35.	Tamarind Leaves	5 8	18 2	2 1	101	5 2	250	0 24	0 17	4.1	3 0	115
36.	Colocasia (Arvi)	3 0	21.1	0.1	40	1.7	24	0.09	0 03	0.4	0 0	97
37.	Carrot (Gajar)	0 9	10.6	0.2	80	2.2	1890	0.04	0.02	0 6	3 0	48

38	Onion	1 2	11 1	0 4	47	0 7	0	0 08	0 01	0 4	11 0	50
39.	Potato	1 6	22 6	0.1	10	0 7	24	0.10	0.01	1.2	17 0	97
40.	Turnip (Shalgam)	0.5	6 2	0 2	30	0 4	0	0 04	0 04	0 5	43 0	29
41	Yam (Zimikand)	1 4	26 0	0 1	35	1 3	78	0 70	—	0 7	—	111
42.	Beans	7 4	29 8	1 0	50	2 6	34	0 34	0 19	0 0	27 0	158
43	Bottle Gourd (Lauki)	0 2	2 5	0 1	20	0 7	0	0 03	0 01	0 2	0 0	12
44.	Brinjal	1 4	4 0	0.3	18	0 9	74	0 04	0 11	0 9	12 0	24
45.	Cauliflower	2 6	4 0	0 4	33	1 5	30	0.04	0 10	1 0	56 0	30
46	Cucumber (Kheera)	0 4	2 5	0 1	10	1 5	0	0.03	0.00	0.2	7.0	13
47	Ladies Finger (Bhindi)	1 9	6 4	0 2	66	1 5	52	0 07	0 10	0 6	13 0	35
48.	Peas	7 2	15 9	0 1	20	1 5	83	0 25	0 01	0 8	9 0	93
49	Pumpkin	1 4	4 6	0 1	10	0 7	50	0 06	0 04	0 5	2 0	25
50.	Tinda	1 4	3 4	0 2	25	0 9	13	0 04	0 08	0 3	18 0	21
51.	Tomato (Green)	1.9	3 6	0 1	20	1 8	192	0.07	0 01	0 4	31 0	23
52	Jack Fruit (Kathal)	1 9	19 8	0 1	20	0.5	175	0 03	0 13	0 4	7 0	88
53.	Tomato (Red)	2.0	3 6	0 1	20	1 8	192	0 07	0 01	0 4	35 0	25
54.	Pears	0 6	11 9	0 2	8	0 5	28	0.06	0 03	0 2	—	52
	NUTS & OIL SEEDS											
55.	Coconut dry	6 8	18 4	62 3	40	2 7	0	0.08	0.01	3.0	7.0	662

56	Coconut Fresh	4.5	13 0	41.6	10	1 7	0	0.05	0.10	0.8	1.0	444
57	Gingelly Seeds	18 3	25 0	43.3	1450	10 5	60	1 01	0 34	4 4	0.0	563
58	Ground nut	25.3	26.1	40.1	90	2 8	37	0.90	0.13	19.9	0 0	567
59	Ground Roasted	26 2	26 7	39.8	77	3 1	0	0 39	0 13	22 1	0 0	570
60	Mustard Seeds	20 0	23 8	39 8	490	17 9	162	0.65	0 26	4 0	0 0	541
61	Sunflower Seeds	19 8	17 9	52.1	280	5 0	0	0 86	0 20	4 5	1 0	620
62	Walnut	15.6	11 0	64.5	100	4.8	6	0.45	0 40	1 0	0 0	687
	FRUITS											
63	Amla	0 5	13.7	0.1	50	1.2	9 0	0 03	0 01	0 2	600 0	58
64	Apple	0 2	13 4	0 5	10	1 0	0 0	—	—	0.0	1 0	59
65	Banana - rise	1 2	27 2	0 3	17	0 9	78 0	0.05	0 08	0 5	7 0	116
66	Dates - dried	2 5	75 8	0.4	120	7 3	26 0	0 01	0.02	0 9	3 0	317
67	Guava	0.9	11 2	0.3	10	1 4	0 0	0 03	0 03	0 4	212 0	51
68	Grapes	0 5	16 5	0.3	20	0 5	0 0	—	—	0.0	1 0	71
69	Lime (Musambi)	0.8	9 3	0.3	40	0 7	0 0	—	—	0 0	50 0	43
70	Mango - ripe	0.6	16.9	0.4	14	1.3	2743	0.08	0 09	0 9	16.0	74
71	Orange	0.7	10.9	0.2	26	0.3	1104	—	—	—	30 0	48
72	Papaya	0.6	7.2	0.1	17	0 5	666	0 04	0 04	0 2	57 0	32
73	Phalsa	1 3	14 7	0 9	129	3 1	419	—	—	0 3	22 0	72

K AND LK . DUCTS

75	Buffalo Milk	4 3	5 0	8 8	210	0 2	160 IU	0 04	0.10	0 1	1 0	117
76	Cow Milk	3.2	4.4	4 1	120	0 2	174.IU	0.05	0.19	0 1	2 0	67
77	Goat Milk	3.3	4.6	4 5	170	0 3	182 IU	0 05	0.01	0 3	1 0	72
78	Human Milk	1 1	7.4	3 4	280	—	137.IU	0 02	0 02	—	3 0	65
79	Curds	3.1	3 0	4.0	149	0 2	102.IU	0 05	0 16	0 1	1.0	60
80	Butter Milk	0.8	0.5	1.1	30	0.8	0 IU	—	—	—	—	15
81	Channa Buffalo Milk	13.4	7 9	23.0	480	—	0.IU	—	—	—	—	292
82	Fish Rahu	16.6	4 4	1 4	650	1 0	—	0 05	0 07	0 7	22 0	97
83	Meat Buffalo	19 4	—	0 9	3	—	—	—	—	—	—	86
84	Meat & Liver - Goat	21 4	—	3 6	12	—	—	—	—	—	—	118
85	Egg - Hen	13.3	—	13 3	60	2 1	600	0 10	0 40	0 1	0 1	173
86	Fowl	25 9	—	0 6	25	—	—	—	0 14	—	—	109
87	Green Chillies	2.9	3 0	0 6	29	1.3	175	0 19	0 39	0 9	111 0	29
88	Ginger - fresh	2.3	12.3	0.9	20	2.6	40	0.06	0.03	0.6	6 0	67

वात, पित्त, कफ से ग्रसित रुग्णता के लक्षण

शरीर, मन और आत्मा के गुण	वात	टिक ✓	पित्त	टिक ✓	कफ
शरीर की आकृति	कमज़ोर, दुबला-पतला शरीर, हाथ-पैर भी पतले और कमज़ोर, डटकर भोजन करके भी वज़न नहीं बढ़ा पाते।		ठीक-ठाक या नाज़ुक शरीर, सतुलित डील-डौल, हाथ-पैर नाज़ुक-नरम।		बड़ी शरीर, मज़बूत ढांचा, पेट फूला हुआ, थोड़ा खाने से भी शरीर फूलता है।
जीभ और मुंह	जीभ ज्यादातर सूखी और कालिमा लिए होती है, जिस पर सफेद धब्बे दीखते हैं। कभी-कभी गले मे रूखापन।		जीभ गुलाबी, लाल। मुह मे छाले।		जीभ सफ़ेद, चिकनापन लिए होती है। मुंह मे मीठा स्वाद रहता है।
भूख, रुचि	रोज़ एक निश्चित समय पर भूख नहीं लगती, बल्कि कभी भी लग जाती है।		रोज़ निश्चित समय पर ही भूख लगती है। न खाने से सरदर्द हो जाता है।		दिन मे एक बार नहीं भी खाया, तो फ़र्क़ नहीं पड़ता। भूख कम, पर खाने के शौक़ीन।
हाज़मा	भोजन कभी अच्छा हज़म होता है, तो कभी गैस बनती है।		भोजन अच्छी तरह हज़म होता है। कभी-कभार पेट में जलन।		थोड़ा-सा खाने से पेट भारी हो जाता है। हज़म होने मे 7-8 घंटे लग जाते हैं।
शौच	क़ब्ज़। मल अक्सर सूखा। कभी-कभार न सूखा, न गीला।		शौच सरलता से। मल पीला और ज्यादा। कभी-कभार पतला भी।		शौच मे ज्यादा वक्त। मल चिकना।
नींद	नींद कम। सपनो, आवाज़ों से नींद टूटती भी रहती है।		8 घंटों की नींद ज़रूर चाहिए। नींद टूटती नहीं, सपने भी कम।		8 से 10 घंटों की नींद चाहिए। नींद एकाएक नहीं टूटती।

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Note List of Equ pmei ts used in ure is enclosec

ive From 1st November' 1999

INSTRUMENTS उपकरण	Rs.
Acupressure Powermat Super Magnetic पॉवरमेट सुपर चुम्बकीय	180
Power Mat Delux पॉवरमेट चुम्बकीय	150
Acupressure Pyramid Plate एक्यूप्रेशर + पिरामिड प्लेट General	120
Acupressure +Pyramid Plate एक्यूप्रेशर + पिरामिड प्लेट General II	100
Five-In-One Powermat (8 Megnates) फाइव इन वन पॉवरमेट	30
Multiplex Massager (16 Wheel) मून चक्र मसाजर with 64 Megnets. . Pointed	150
Spine Roller (4Wheel 4Magnets) रोलर चुम्बकीय Curved .. . Delux	150
Acupressure Sheet एक्यूप्रेशर शीट	150
Magic Massager (With Handle) मैजिक माला Delux	100
Self Massager (With Handle) सैल्फ मसाजर (With Medula Points)	85
Wonder Roll वंडररोलर (Small) Pyramidal ... Soft	120
Wonder Roll वंडररोलर (Big Delux) Pyramidal Soft	200
Magnum Roller मैग्नम रोलर Best for Sciatica	250
Acu Car Sheet एक्यूप्रेशर कार शीट (Maruti)	425
Twister ट्वीस्टर (Body Weight Reducer Disc)	290
Foot Roller फुट रोलर (कृपा चक्र) Wooden	60
Foot Roller Delux फुट रोलर (With Rubber Bush)	80
A Marvallous Collection "MEMORY" (Audio Album)	50
Acupressure Shoe Sole एक्यूप्रेशर शू सोल	50
Acupressure Shoe Sole Delux quality शू सोल डीलक्स	80
Acupressure Book एक्यूप्रेशर पुस्तक Dr Rankawat's	80
Pyramid Roller (With Handle) पिरामिड रोलर Wooden	45
Pyramid Roller (With Handle) पिरामिड रोलर (Plastic) Soft ..Pyramidal	40
Power Grip पॉवरग्रिप Delux	25
Vacum Ball (Half Ball) वेक्यूम बॉल	20
Energy Roller एनर्जी रोलर Soft .Pyramidal	20
Jimmy जिम्मी (Plastic)	20
Spring Jimmy स्प्रिंग	25

29	Jimmy Delux जिम्मी डिलक्स Wooden / Rubber
30	Acu Point Finder Jimmy इलेक्ट्रिक पॉइन्ट शोधक जिम्मी
31	Mini Roller मिनी रोलर
32	Pocket Exerciser पॉकेट एक्सरसाइजर
33	Magic Ball मैजिक बॉल (Best For Constipation)
34	Cervical Massager (4Wheel) सर्वाइकल मसाजर Pointed
35	Thumb Jimmy अंगूठा जिम्मी (Pressure By Thumb)
36	Acupressure Poster एक्यूप्रेशर पोस्टर रंगीन (Full Size & Coloured)
37	Finger Massager फिंगर मसाजर (Wooden)
38	Knee Cap Magnetic (Pair) चुम्बकीय नी कैप (Ten Magnets)
39	Dia Belt चुम्बकीय डायबिटीज बेल्ट Multi Purpose Belt
40	Cervical Belt सर्वाइकल बेल्ट
41	Wonder Belt वंडर बेल्ट (for Head, Shoulder, Knee & Calf)
42	Magnetic Payal चुम्बकीय पायल Deluxe
43	Back and Belly Belt चुम्बकीय बैक एण्ड बेली बेल्ट (Big)
44	Back and Belly Belt चुम्बकीय बैक एण्ड बेली बेल्ट (Small)
45	Back and Belly Belt Pyramidal (चुम्बकीय बैक एण्ड बेली बेल्ट (कॉपर+पिरामिड)
46	Magnetic Glass चुम्बकीय ग्लास (Big)
47	Eye Care चुम्बकीय चश्मा (Delux)
48	B P Watch ब्लडप्रेशर घड़ी Magnetic
49	B P Belt (ब्लड प्रेशर बेल्ट) Delux quality (Magnetic)
50	Necklace चुम्बकीय हार (Magnetic)
51	Necklace (Export Quality) चुम्बकीय हार
52	Ear-Nose-Throat Magnet Set कान-नाक-गला-चुम्बक Curved
53	Head Belt (With Magnet) हैड बेल्ट (With UMF power)
54	Acupressure Sandals एक्यूप्रेशर सैण्डल
55	Acupressure Chappal एक्यूप्रेशर चप्पल 'V' Shape... Cross ....
56	Pyramid Chips पिरामिड चिप्स (Set of 9)
57	Multi Grid Pyramid Key - Ring पिरामिड की रिंग ि एनर्जी बॉल
58	Magnetic Water Stand चुम्बकीय मटका स्टैण्ड
59	Steel Jimmy स्टील जिम्मी For Sujok
60	Sujok Ring सुजोक रिंग For Fingers
61	Mini Vibrator [illegible] मसाजर (Battery operated)

Acu. Vibrator With 8 वाइब्रेटर चुम्बक सहित	600
Acu. Vibrator With 8 Attachment + Heater ... सहित	800
Acu. Vibrator With 11 attachment वाइब्रेटर डबल स्पीड	690
Clinical Vibrator Jim Star पॉवरफुल मसाजर (With Heat)	1750
Relaxo Massager रिलेक्सो मसाजर	550
Heat Pillo हीट तकिया	210
Super Power Steel Magnet स्टील चुम्बक सुपर पॉवर	990
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Low Power Steel Magnet स्टील चुम्बक लो पॉवर	350
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Medium Power Magnet मिडियम पॉवर चुम्बक	350
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Electronic Faradic Pulser (With Micro Pulses) 9 Volt A.C. or D.C., Battery + Transformer Included इलेक्ट्रोनिक पेन रिलीवर पल्सर (बैटरी व ट्रांसफार्मर सहित)	2800
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